

by Piven J. Borgenicht 1 edition - first published in Empty Worst Case Golf 8cpy Display by Piven J. Borgenicht 1 edition - first published in

No issues Abstract Have you ever wondered why golf balls have a pattern of dimples on their surface? The dimples are important for determining how air flows around the ball when it is in flight. For example, backspin generates lift, prolonging flight. When the ball is not hit squarely with the club, varying degrees of sidespin are imparted to the ball. A clockwise sidespin viewed from the top will cause the ball to veer right or slice. A counterclockwise sidespin will cause the ball to veer left or hook. This project attempts to answer the question, "Can an asymmetric dimple pattern decrease hooks and slices? Share your story with Science Buddies! Yes, I Did This Project! Please log in or create a free account to let us know how things went. Credits Andrew Olson, Ph. Be sure to check the formatting, including capitalization, for the method you are using and update your citation, as needed. A Cure for Hooks and Slices? A golf ball with a smooth surface would only travel about half as far as the dimpled ball. Why is this so? The answer has to do with the flow of air over the ball when it is in flight. When a solid object moves through a gas or a fluid, the gas pushes back on the solid. In aerodynamics or fluid mechanics this resistive force is called drag. The dimples on the surface of the golf ball are there because they reduce the drag force on the ball Figure 1. The dimpled surface of a golf ball decreases the drag force on the ball as it flies through the air Scott, How exactly does this work? Figure 2 compares the airflow pattern for a smooth ball top vs. In the case of a ball with a smooth surface, the airflow in the thin layer right next to the ball called the boundary layer is very smooth. This type of flow is called laminar. The turbulent wake exerts a drag force on the ball. When dimples are added to the surface of the ball, they create turbulence within the boundary layer itself. The turbulent boundary layer has more energy than the laminar boundary layer, so it separates from the surface of the ball much later than the laminar boundary layer flowing over the smooth ball Figure 2, bottom. Since flow separation occurs later, the turbulent wake behind the ball is narrower, resulting in less drag force. Comparison of the airflow over a smooth ball vs. In the case of the smooth ball top, the boundary layer has a laminar flow pattern which separates from the surface early, creating a wide turbulent wake behind the ball. In the case of the dimpled ball, there is a turbulent boundary layer which separates from the surface later, creating a narrower turbulent wake behind the ball. The narrower wake results in less drag. Thus, given the same initial launch force, the dimpled ball travels further than the smooth ball Scott, In the real world, the situation is more complex than shown in Figure 2. To make things even more complicated, the club generally imparts a spin to the ball. How does spin affect the flight of the ball? To be more precise, backspin is a spin around the horizontal axis, in a clockwise direction if viewed from the left-hand side as in Figure 2. Since the surface of the ball is now moving in a clockwise direction, the airflow over the top of the ball will be sped up, and the airflow over the bottom of the ball will be slowed down. This has the effect of decreasing the pressure above the ball, and increasing the pressure below the ball. In other words, a spinning ball acts like an airplane wing and creates lift. Figure 3 shows how backspin affects the airflow over a golf ball in a wind tunnel. The smoke lines in Figure 3 show the airflow pattern. Notice how the flow pattern behind the ball is warped downward. This is the same type of pattern you would see for an airfoil at an angle to the wind tunnel air flow like an airplane wing at takeoff when the plane starts climbing. The spin rate used in Figure 3 was less than the average spin for a golf ball hit by a club. The lift effect with real-world spin rates would be even greater. Spinning golf ball in a wind tunnel. The smoke lines show the pattern of airflow over a golf ball with backspin. The air moves faster over the top of the ball, and more slowly over the bottom of the ball. The flow field is curved downward, indicating that the spinning ball is generating lift F. Brown, in Veilleux and Simonds, Then the induced spin will have a component about the vertical axis. In this case, the spin would be clockwise, as viewed from above. The spin would result in an aerodynamic force pushing the ball off to the right, away from a straight flight path. In addition, the initial launch angle would be off to the right instead of straight ahead. These two combine to create what golfers call a slice. Instead of sailing straight down the fairway, the ball curves off to the right, perhaps into the rough, or trees, or

in the worst case off to an adjacent fairway. Golfers call this a hook. The Polara golf ball has an asymmetric pattern of dimples. There are six rows of deeper dimples on either side of the equator. At each pole, the dimples are shallower. This creates an airflow that tends to correct sidespin, and reorient the ball toward straighter flight. Does it have a significant effect on where the ball ends up? Terms and Concepts To do this project, you should do research that enables you to understand the following terms and concepts:

Chapter 2 : Display Cases : golf

What is best and worst case in this java program. I think worst case is $O(n^2)$ and Best case $O(n)$ or maybe $O(1)$. Can I simply say best case in $O(1)$ in case the list is already sorted?

This is where the partially-filled array comes in. To do this, you need to supply space for the extra elements, and also keep track of which elements are valid. The most common reason for processing only "part" of an array is when only a portion of the array actually contains valid data. In the SumAvgCount applet from the last chapter, we filled all of the elements with random numbers. Open the starter program in DrJava and type along. Capacity and Size To do this, we need to keep track of how many values the user has entered, and how many empty slots are still available. The array shown here has a length of 10, which is also its capacity. Only the first four elements have meaningful values, though, so the size of the array is 4. However, the ConsoleProgram read methods can only read one number per line, while the Scanner methods let you place several numbers on the same line, and then "pick them off. We want to read from the ACM program console, though, so we initialize our Scanner using the `getReader` method designed for just this purpose. After creating the Scanner, create two variables to store these numbers: Initialize capacity using the built-in array length variable: Reading the Input To initialize the array, use a sentinel loop along with the user input. As each value is entered, store it in the array, and then increment the variable indicating the number of items in the array like this: The input loop works like this: The user is told what to enter and how to end the input with a 0 or negative number. A "loop and a half" is used for input, with the necessary bounds, that is, the maximum number of values have been entered, used to control the loop. If `num` is a valid value, it is stored into the array, using the size variable as the index. Finally, the size variable is incremented, so that the next input value will be stored in the next element of the array. Instead, this program has to use a traditional for loop because we only process the "valid" elements, using the size variable to control the loop: That means that the loop we use to print out the values must put a comma after each element, except for the last. The easiest way to do this is to first, check the postcondition value of size to make sure that the user has actually entered any values. Otherwise, if the array is "empty", the loop would "blow up" when we tried to print the first element in the array. If the array does contain valid elements. The loop prints the first element, and then all of the remaining elements starting at the second. Notice that the for loop index starts with 1 and not with 0. Each output statement begins by printing the following comma from the previous element, followed by the current array element value. Suppose, for instance, that instead of simply adding items to the end of the "unoccupied" section of numbers in the InputArray program, we placed each number into its correct position in the array. As you can see, the array is partially filled, and the next number, 3. To put the number in its correct location we need to: These algorithms usually only make sense when used with partially filled arrays, those that use a separate size variable indicating how many elements are actually occupied. If you insert an element into a completely filled array, then the last element in the array will be lost when the previous items are moved to make room for the inserted item. In a similar way, when you remove an item from regular array, you have to way of indicating that the last value no longer contains a valid entry. If you need help completing the other sections, look back in this section. Find the Position The first step is to find the position where the new element should be inserted. You do that by writing a loop that looks for the first element that is larger than the element you want to insert. Note that the index value used in the for loop is not declared inside the loop initializer section although it is initialized there. Note also that if there are no elements in the array that are larger than the number you are inserting, that `i` will contain the same value as size when the loop ends, and that the number will then be added to the end of the current elements, which is what we want. Move the Existing Elements Before we can store `num` in the array, we need to move the existing elements to the right, to "open up a hole" for the new value. There is no Check program but you can compare your results with the picture shown here. Removing Elements Removing the elements in an array works in an almost identical manner as inserting elements, except, instead of moving a portion of the array to the right, to "open up a hole", you need to move all of the elements to the right of the deleted element leftwards to "close up the gap". The variable

delPos is the location of the element you want to delete: Partially Filled Arrays Summary A partially filled array is used when only some of the data is valid. Create separate variables for size and capacity, setting size to 0 and capacity to the maximum amount of expected data. This is often called the worst-case scenario. Then, create your array using capacity for the size. Inside the loop, place each element at subscript position size, and then increment the size variable. To process the elements in a partially-filled array, use a traditional for loop that goes from 0 to size - 1 instead of length - 1. To insert elements into a partially-filled array in order, you first find the location where the element should go, then shift each element from that position to the right by one, and finally place the new element into position and increment the size variable. For this to work correctly, the loop you use to shift the elements to the right must work from the right that is the end to the left. To delete an element at a particular position you can simply copy the last element into that position and then decrement size, if order does not matter. This shifting loop must go from left to right, unlike the insertion shifting loop. Any materials may be reproduced for non-profit purposes so long as 1 this notice remains intact and 2 you notify me of your use.

Chapter 3 : What's next for the post-Process Philadelphia 76ers?

Welcome to r/golf.. I dont need to meet new people! Post anything golf related! If you don't see your post, it's probably because your account has low karma and AutoModerator removed it.

With the fates of several All-Stars up in the air, can Draymond Green keep the Warriors dynasty going? But today, two years removed from that outburst, on a team searching for an identity to propel a Process the Sixers have trusted to its highest goal, it is an open question whose team they are -- and exactly whose spirit they will channel. This cathedral of a gym is bathed in natural light, and one of the two practice courts is set up for an early-morning sponsorship event -- since when did players in early summer need use of the court before 8 a. Simmons gets to work on the empty court, with the folding chairs, royal blue paraphernalia and busy facilities staff in his peripheral vision. He moves through his regimen of drills methodically, indifferent to the scene around him, sending a clear signal: A guy who often strolled in 30 minutes before practice last season is now aiming to be a round-the-clock presence. And Simmons, who keeps a close-knit circle with his brothers at its center, is starting to spend more time at the facility at the urging of those confidants, who felt it was time his daily habits reflect that competitiveness so evident in live games. Moments earlier, with 20 seconds left and Toronto clinging to faint hope as Lowry pushed the ball up the court, Simmons had poked the ball away with his octopus arm, sealing the deal. When Embiid had stepped to the line on the subsequent possession, Lowry had gone at Simmons. The rookie, in turn, grunted a few choice words but was unwilling to fully engage Lowry in a conventional jawing match. Stars assembled on rosters with championship aspirations have never had more at stake: Multiple superstars having to breathe the same oxygen and share the spotlight in this environment is a potentially combustible situation. Is there sufficient oxygen in Philadelphia for Simmons, a far more introverted personality than the vocal Embiid, to contribute to the collective identity? Can Simmons be satisfied with broad admiration for his competitiveness and selflessness as a player, if Embiid is beloved as a charismatic leader? Many inside the franchise believe that the dynamic will reveal itself over time, as it does in any marriage. The players face coach Brett Brown, who holds the ball in his hand. Brown zips the ball at Markelle Fultz. Brown throws the ball. A player catches the ball. And then that player must walk to the foul line and shoot a pair of free throws. It has only one rule: Miss either attempt and the whole team sprints the length of the court and back. It is not at all certain how well Markelle Fultz can shoot a basketball. The timeline of these things was well-documented. Information about the injury, which occasionally contradicted previous reports, was dispensed sporadically. Video clips of his reconstructed jumper and free throw from practice and pregame warm-ups circulated widely. Fans constructed their own narratives, watching Fultz shoot an awkward brick and diagnosing a mental collapse as its cause. You wanna figure out what it is. It was a normal mental thing of just trying to figure out what was going on and just working through it. Those who have observed Fultz over the summer report that his shot-creating abilities are on full display and that he looks reasonably good coming off pick-and-rolls for midrange jumpers. So it is that Brown is prepared to field a backcourt of Simmons and Fultz, two otherworldly athletes and No. Simmons is a 6-foot locomotive with night-goggle vision and already an elite defender who can guard every position. Fultz is a multifaceted scorer who can destroy defenses off the dribble and whose wingspan projects him to be a solid defender. But in a league where long-range shooting has become mandatory for success, the tandem offers absolutely no range. Brown has always been an unconventional coach willing to challenge rote NBA thinking, but this experiment will test what unconventional thinkers before him determined was best practice: And now, today, with everyone in the gym observing his form like a panel of figure skating judges, Fultz breezes up to the line. He just grabbed the ball, walked up there. Redick, who in 12 seasons has converted 1, 3-pointers at a And though one successful 3-pointer in preseason does not portend much, empowering Fultz is a gamble the Sixers are willing to take in the present to service the future. Fultz motivated the Sixers to trade a considerable asset and forgo Jayson Tatum , a move they orchestrated with unequivocal zeal. The organization is pot committed to Fultz. Two years ago, Brand was waiting by the phone in hopes of finding a job on an NBA roster as a journeyman in his twilight, all the while killing time practicing yoga and performing carpool duty. The

accounts seemed to have knowledge of sensitive information -- injuries, aborted transactions, internal discussions about on-court strategy. Personal jabs at Embiid were even found among the tweets. Sixers brass promptly launched an investigation, and the findings determined that the accounts belonged to Barbara Bottini, the wife of president of basketball operations Bryan Colangelo. A week after the investigation began, Colangelo resigned. The Sixers had initially gone big-game hunting, and a number of veteran general managers had reached out through intermediaries to inquire about what was now the most coveted executive opening in the NBA. Discussions with Rockets GM Daryl Morey were "pretty far down the road," according to a source close to the process, but Morey elected to remain in Houston. As the search wore on, a consensus began to build in Philly that maintaining front office continuity was essential to the future health of the organization, a feature Brown in particular valued and fought for. Two days before the start of camp, Brand -- who had helped, as a junior executive, guide the basketball operations over the summer -- was announced as the general manager. And it might as well be here, and it might as well be now. He had nearly unprecedented access as a fledgling junior exec to top-level discussions. He is also only two years removed from serving as a sparring partner at summer workouts. When the ownership group and top executives drew up a list in descending order of the most important facets of the job -- recruiting stars to Philadelphia, continuing to build out a top-notch infrastructure -- the top priority was player management. In short, it was a job for Elton Brand. The thinking goes that should they have second thoughts, the owners can return to the big-game hunt and install someone at the top of the org chart above Brand. At his introductory news conference in late September, Brand was pressed to define the decision-making hierarchy in Philadelphia. Sitting alongside controlling owner Joshua Harris, Brand emphasized that whatever input he and Brown had in personnel matters, he would ultimately make recommendations to ownership, who had the final say. A month into his second season as the Sixers coach, Brett Brown organized a conversation between his injured rookie center, Joel Embiid, and Tim Duncan. Four years later, Embiid still refers to the advice he received from the five-time champion. Regardless, Brown, who served as a Spurs assistant before taking the head-coaching gig in Philadelphia, has brokered the meeting between his injured rookie big man and the five-time champion. Keep a schedule during the offseason, and work hard -- but carefully. Boxing is a good workout. Identify a good weight to play at. Develop 1 or 2 great moves, and counters for each. Williams has a pastoral authority with players and credibility as a former head coach and Spurs alumnus. And today, with Embiid, he shared them both. But for as much as Embiid treasures the opportunity to declare that a rival young big man will be getting his ass kicked, he is gradually getting acquainted with the idea that Williams is right -- there might be something missing. Such transgressions are regarded as baby fat that Embiid is quickly shedding. His favorability ratings among teammates and management are high. They believe that the social media moments will grow more selective and the passes out of the post more selfless. That which is missing can be discovered in time. And so it is that a team born of data and formula now rests its aspirations on hope and faith. Faith that an untested guard can achieve stardom, faith that an inexperienced executive can fulfill his potential. Faith that two otherworldly young talents can forge a bond that can lift a franchise. He puts his phone back in his pocket.

Chapter 4 : algorithm - Java Best and Worst case complexity - Stack Overflow

Display results as threads I charged up to % for a golf trip three weeks ago and had full range of miles. I think that is possibly the worst case.

We can lead you thru the process of changing the autopark parking brake system from a nightmare to just one of the things you do to take care of your coach. The basic reason it HAS been a nightmare is that AutoPark has been horribly neglected in terms of product support. GM, Chevy, and Workhorse have collectively fallen down on the job when it comes to providing parts and information to BOTH the dealerships and the customers. As a result, they have fostered a system that throws parts at problems, charges huge amounts of money for poor service, and essentially leaves you the owner, not knowing what to expect next and how to deal with it. Interestingly, actuator repair turns out to be one of the very few things that an owner might need some outside help to accomplish. Even then, most of the repair process IS something you can participate in – saving about 90 percent of the average costs for this work. About 95 percent of all autopark repairs are things that most any decent shade-tree DIY mechanic can do for himself. That probably is NOT true for automatic transmissions, injection systems, onboard computers, or many other components that we have learned to live with, and accept as just part of owning a vehicle. What it boils down to is this: Almost any coach owner can diagnose and fix most autopark parking brake issues. You need to carry a few not readily available spares, a few common tools, and the necessary information. Armed with this information, your spares, and a bit of help, you can fix yourself right out of nearly any autopark issue. Soooo – Let us help you get rid of the nightmare and anxiety of living with AutoPark. Once you really understand how it works, your apprehension will become a fraction of what it now is. Most motorhomes that have this feature will be over 16, lbs. GVW – but that is not an absolute promise. This particular data sheet is about the AutoPark Light. Over the years we have found: You can see the printed wires, connections etc. Further investigation may show that the circuit was printed for some other chassis – sometimes a diesel chassis where it will show glow plugs or something like that. It just happens to be that way sometimes. It is usually going to be located on the left hand side of the cluster, over the tachometer. This is an idiot light in the best or worst sense. Just the same, it is about the ONLY indicator you have that will perhaps tell you something about what the AutoPark system is doing. So in spite of the fact that it is a marginal device, you need to have one and it needs to be working unless you have a Genie Lamp module – more on that later. It is really important to get good answers to this question. You can build one yourself with parts from Radio Shack or elsewhere – about twenty bucks worth. Ready to go kits are also available. Installation time is typically a couple of hours but that depends on you and your coach. Oldusedbear – aka Roger, at rvAutoPark. As such, we seriously recommend that you flush the old ATF out of the AutoPark system and replace it with new, fresh fluid. Here is our suggestion on how to do this job: You could just get a friend to help you and have one person hold the bottle so the hose stays in it and captures the old used ATF. Pull the gear shift lever out of PARK. One flush should clean most systems, but if you see a lot of residue in the reservoir, you should repeat the process till everything looks clean. Hook your high pressure hose back up to the back of the AutoPark actuator, refill the reservoir again, and you should be good to go. Get back to us with any questions – oldusedbear

Understanding Auto Park parking brake actuator shaft travel This subject is often misunderstood. This means that it is NOT an emergency brake. It is NOT designed to stop a vehicle that is already rolling. It IS designed to keep a vehicle from rolling once it has been stopped by the service brakes. Barring one of the two above scenarios, the lining in the parking brake should last indefinitely. A rare exception would be if the rear seal in the transmission leaks, and soaks the brake shoes with ATF. This will require replacement of the shoes regardless of their wear condition. You can see the shoes, levers, springs etc. As such, the actuator shaft has moved as far to the left as possible. This is a fixed, mechanical limitation. For purposes of this illustration, ignore the small amount of fluid shown in front of the piston. Again, another fixed and mechanical limitation. We would estimate that the total travel between these two limits would be about 2. Additional information is based on what we can lift from the manuals we have, as well as what we have extracted from our history and

experience with AutoPark parking brake systems about a ten year adventure. While not perfect, they will be well within the limits of accuracy needed to explain the workings of the system. If you follow the cable from the parking brake drum, it does NOT go directly to the actuator. The geometry of this setup is such that if the blue cable moves about an inch, the red cable will move about an inch and a quarter. This is important to remember in any discussion of actuator travel. For this parking brake system to function properly, you must start with good brake shoes which are properly adjusted. This establishes the desirable one inch of travel that the lever must make in the brake drum assembly. If there is MORE than one inch of travel at that point, you cannot properly compensate for it by changing cable adjustments or some other parameter in the system. So Assuming the cables themselves are in good condition, this leaves our remaining variable to be the long hex nut on the actuator shaft depicted as 1 in the illustration above. If we then remove the hydraulic pressure from the actuator, the spring will expand, and the piston and shaft will move to the right applying the brake. This means that the brake lever in the drum will move about an inch, the cable going to the lever relay will go about the same inch, the cable going FROM the relay to the actuator will move about 1. In other words, if one were to cut the cable under the BRAKE ON condition, the actuator shaft would snap back into the actuator an additional. It is this preload that makes it somewhat difficult and dangerous to disconnect the cable at the lever relay clevis while the cable is under this preload tension. You will notice a warning to that effect in the illustration above. The whole concept of achieving 1. No amount of monkey-fudging with other adjustments is likely to cure the problem.

Chapter 5 : Best And Worst Case Scenarios For No. 16 Penn State Hockey's Season | Onward State

The worst-case scenario for Penn State is simple: not qualifying for the NCAA tournament and letting last season's step back snowball into even more regression. The Nittany Lions needed four consecutive victories over Minnesota to find their way into the NCAA tournament, but anything less than national tournament qualification is a.

Irwell Valley The Irwell is all that remains of the shallow seas that covered most of south-east Lancashire in the Late Carboniferous period, when deposits of mud and sand were laid down. During the Permian and Triassic periods, red sandstones were deposited under arid, desert conditions and these became compressed into beds of shales, New Red Sandstone and Manchester marls, alternating with layers of gritstone. Ashclough is a site of national importance for interpreting the coal measure palaeogeography of Great Britain. This comprises Lower Coal Measures overlying Millstone Grit, both of which are classified as minor aquifers which will only hold relatively small amounts of water. The Millstone Grit is, in turn, underlain by limestone rocks from the lower Carboniferous period. The sand and gravel are also classified as a minor aquifer, whilst the boulder clay is a non-aquifer. Where the channel is constricted, this material is then deposited and can contribute to a reduction in channel capacity. The origins of the name "Irwell" are uncertain but many accept the Anglo-Saxon origin, ere-well, meaning "hoar or white spring". Neolithic tools have also been found in the River Roch near Bury and in Radcliffe, and Bronze Age burial sites have been found in Bury and Shuttleworth. The Danes later seized, and all-but destroyed Manigceastre, and absorbed what was left of the tribes. The most important part of the gift was the fishing rights on the River Irwell, and even in the 18th century, the salmon rights on the rivers of Lancashire were let every year for many hundreds of pounds. Local industry dumped toxic chemicals into the river, such as gas-tar, gas-lime and ammonia water, and by fish stocks had all but disappeared. In the Irwell was described as "almost proverbial for the foulness of its waters; receiving the refuse of cotton factories, coal mines, print works, bleach works, dye works, chemical works, paper works, almost every kind of industry. The English People, describing it as: The hapless riverâ€”a pretty enough stream a few miles higher up, with trees overhanging its banks, and fringes of green sedge set thick along its edgesâ€”loses caste as it gets among the mills and the printworks. There are myriads of dirty things given it to wash, and whole waggon-loads of poisons from dye-houses and bleachyards thrown into it to carry away; steam-boilers discharge into it their seething contents, and drains and sewers their fetid impurities; till at length it rolls onâ€”here between tall dingy walls, there under precipices of red sandstoneâ€”considerably less a river than a flood of liquid manure, in which all life dies, whether animal or vegetable, and which resembles nothing in nature, except, perhaps, the stream thrown out in eruption by some mud-volcano. It did, however, lay the groundwork for the more draconian legislation which followed, and in the Mersey and Irwell Joint Committee was formed. Local authorities were ordered to provide sewage treatment facilities, and industrial concerns were told to use the best practical means of preventing pollution. Salford was one of the first authorities in the Irwell watershed to install intercepting sewers and sewage treatment works at Mode Wheel Sewage works. Whenever anyone was in difficulty in the river, the cry would go up "Bring Mark Addy! In he became the only civilian ever to be awarded the Albert Medal first class, [35] His final rescue was on Whit Monday in , when he saved a young boy from a particularly sewage-laden section of the river. After this he became ill, and died of tuberculosis in aged In , the Mersey and Irwell Joint Committee was superseded by the Lancashire Rivers Board, but wartime conditions brought about further deterioration of the river. In , the Rivers Prevention of Pollution Act was passed and this board disappeared to be replaced by the Mersey River Board, which was replaced in turn by the Mersey and Weaver River Authority in In , there was serious flooding in Salford, caused by a bottleneck at a bend in the river at Strangeways, on the border with Manchester. Flooding had been a problem for hundreds of years, [33] and, in , the decision was made to straighten and widen the river to increase its capacity. Work started in but it was not until September that water first flowed through the Anaconda Cut. Anthony Greenwood, highlighted the lamentable condition of the Irwell and one of its main tributaries, the River Roch: Today I am afraid that fish in most of those rivers are virtually extinct. Anybody who stands today in the City of Manchester outside the Exchange Station and

looks down at the noisome black water which flows beneath him would find it difficult to believe that any fish, or any other living creature, could ever have lived in what the Manchester Guardian has so rightly called that "melancholy stream" I have had my differences with the British Field Sports Society, but I have nothing but admiration for the excellent series of reports on river pollution which have been prepared for that Society. These two rivers were covered by the third report; and very sorry reading it made. There are two passages in that report which I should like to read. Sewage effluents and, being usually very good, they are the most encouraging feature of the appalling situation are hailed with delight as being the purest water which the rivers hold. Members of the frequency with which residents in Bacup, Ramsbottom, Manchester and Salford are subjected to flooding from the waters of the Irwell. The secretary of the society was quoted as saying: Extensive tests have been carried out on fish we put in the river and we are satisfied that the water will support fish life. Roach and perch have already been caught and we have had no reports of any ill-effects. There is no doubt the pollution is clearing. It will be a long job, but we are sure there is a future for angling in the river. The report went on to state that the society "intends to carry out stocking operations soon". The Deputy chief water quality officer for Salford, Mr. Ten years ago, any fish getting as far down as Salford would have been killed almost immediately by the pollution in the water. Although the river there is now a great deal better than it has been for years, fish will probably not be able to live long. These had probably got into the main river from small streams flowing into the Irwell. But I think it is real progress. During nine years of pollution control work reviewed by the North West Water Authority, the biggest improvement had been in the Bolton District, where effluent from five dilapidated sewage plants and two paper mills were now being treated at the Ringley Fold Works [but] there has been little reduction in pollution from the river Roch. At Bacup the headwater of the Irwell is discoloured by ochre deposits from a disused mine but work is being done to stop the ochre seepage. Fish do exist in the stretch between Rossendale and Bury and fish are to be introduced in stretches between Radcliffe and Manchester. However, it is feared that it will be many years before fish will be able to breed freely in the river. County Councillors at a recent committee meeting had criticised the condition of the river, with the councillor for the Metropolitan Borough of Oldham calling it "quite revolting and horrible". A spokesperson for the NWWA said that, although the river had a reputation for being polluted, it was getting much better but still had not reached a state where they would be satisfied. The proposals were welcomed by both Salford University and Agecroft Rowing Club, with the university stating that they wished to use that section for their boat race. In February the Manchester Evening News reported that "ten jacksharps [sticklebacks], about two inches long" had been spotted by a site manager working on the Mark Addy public house, which was then being built on the disused New Bailey Landing Stage, below New Bailey Street, on the border of Manchester and Salford. And the public are cordially invited back onto her waters. The improvements included fitting filters on sewers in Lower Broughton to ensure litter was not washed into the river, as part of a scheme to improve overflows across Adlington, Wigan, Chorley, Rochdale and Bury. New legislation states that the amount of phosphate in waste water should be one milligram per litre because it causes water to clog with algae and reduces the amount of oxygen in the water, which results in less aquatic life and fish. Iron oxide from old mine workings near the source at Irwell Springs had polluted the water since and in a Coal Authority survey identified the stretch as having the fourth worst case of minewater pollution in the country. Although the water was stained with ochre, no damage to wildlife was reported. Mersey and Irwell Navigation In the late 17th century, the Warrington businessman Thomas Patten had made the River Mersey navigable as far as Warrington and suggested that there would be significant commercial value in extending this along the Irwell as far as Manchester. The solution was to build a canal-carrying bridge across the river, the first barge aqueduct in England. The most important cargo carried was raw cotton from Liverpool to Manchester but timber, dyewoods, pig iron, lead, copper, nails, tar, sand, grain and flour were also carried. In they began to use packet steamers. However, in the Liverpool and Manchester Railway opened; packet boat services went into decline, and ceased to operate completely in the s. All are now non-navigable, although the first is under restoration. Manchester became increasingly reliant on its Merseyside neighbour for its imports and exports, but the handling charges and dues charged by the Mersey Docks and Harbour Board made goods from Manchester uncompetitive. A solution was to build the

Manchester Ship Canal. Fortunately, in the 1840s the councillors of Eccles paid to have the aqueduct moved to the spot it occupies today, alongside the canal. By the 1850s however, the UK had begun to lose its position as an industrial world power. By the mid-19th century, the UK cotton industry had gone into decline because of low-cost competition from Asian manufacturers. The decline of heavy industry in the area, the increasing size of freight-carrying ships, and competition from road transport, brought about the decline of the terminal docks at Salford, which closed in 1982. A second flood line was added after the floods. The lower reaches of the Irwell have flooded many times in its history, the most well documented being the floods of 1864, 1892, 1903, and 1963. In December 1963 rapidly thawing snow caused the river to flood, sweeping away a considerable amount of property including building materials and livestock. Locals reported the height of the river to have been almost as great as a more serious flood of 1864. A local public house, the Black Boy, suffered extensive damage as the water caused the rear wall to collapse, a local brewery was flooded with the loss of all its stock, and a Mersey Flat came free of its moorings, hitting Regent Bridge. The new development also provides a new footpath around the site which links to existing footpaths to provide a green route to and from the centre of Manchester. The 28 hectare flood basin will protect surrounding properties by holding up to 10 million litres of water during flood conditions. The embankment around the basin features an inlet to allow the controlled spill of water into the basin when river levels are high. Water will then be stored in the basin during a flood and released back into the river once the water level has dropped. The flood embankments have also been planted with 10 hectares of wildflower habitat, to attract pollinating species such as moths, butterflies and bees. The Salford Quays waterside development has made living by the Irwell, and the Manchester Ship Canal into which it flows, fashionable once again. The vision is to reinvent the central Manchester conurbation as the major waterfront destination in Northern England. The intention is to develop 8 kilometres of waterfront. The three authorities formally adopted the draft Planning Guidance in March 2004. The Guidance sets out the guidelines that the councils will use as a material consideration in determining applications for planning permission and other matters in the Irwell City Park area. An application is to be made to the North West Development Agency in October to support pre-project implementation work, including design and technical feasibility work. At the turn of the 20th century, rowing was very popular in the area with many local clubs such as Nemesis, Prince of Wales, Minerva, Didsbury and Agecroft all competing regularly. With the decline in the condition of the water, by the Second World War only Agecroft and Broughton rowing clubs were still active.

Chapter 6 : Piven J. Borgenicht | Open Library

This is often called the worst-case scenario. Then, create your array using capacity for the size. To add elements to a partially-filled array, you'll usually use a sentinel loop.

Chapter 7 : code golf - N-bit Variation on Subset-Sum - Programming Puzzles & Code Golf Stack Exchange

Insertion sort's best case scenario is when the values are already in ascending order. What you have described is its worst case scenario where for each inserted value all previously inserted values have to be moved which results in $\hat{O}(n^2)$.

Chapter 8 : "Partially-Filled Arrays

Here is a worst case example containing multi Stack Exchange Network Stack Exchange network consists of Q&A communities including Stack Overflow, the largest, most trusted online community for developers to learn, share their knowledge, and build their careers.

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Best Golf Rangefinder Reviews (Real Reviews Inside) Posted on April 1, August 26, by honestgolfers If there's anything

that bothers golfers to their very core, it's having to manual measure distance to a flag, hole, hazard, and so on.