*What is Alten?*  
large company 30 thousand employees.  
Engineer driven company 88% of whom are engineers. Commonly the sales and marketing people seem to dominate in companies so this is very unique. Alten is a very diverse company with people form over 70 countries.  
Top employer in France and Spain  
aerospace engineering working with Dassault Aviation, obviously with Toulouse being a hub for that. Specicially with the Rafale plane which is very cool. I am a small bit of a plane nerd.   
Intelligent cars, users services, safety and risk management,example  
railways, defence, telecommunications, energy  
A lot of work in the automobile sector. I can see Alten have excellent reviews on Glassdoor.

Everything from natural gas projects to augmented reality to trains, to cybersecurity.  
lot of different projects:

The technologies are very interesting  
Machine learning ->  
Matlad, Simulin  
Datascience  
Python, perl  
java, C#,   
Even an Oceanography  
  
What do I do at SAP?  
I am a Software Development Engineer with a specialty in the SCM area. I work on product called Business by Design which is a cloud ERP solution for SME clients. I’ve nearly 3 years experience working for SAP. With almost 2 years 6 months in my current role. I started as an intern. I have deep knowledge of SCM processes related to inbound and outbound logistics. Typically I debug incidents and figure out in the code where something went wrong and release hotfixes or patches if need be. I work with Support colleagues who actually deal with the customer.   
I work with colleagues in Bangalore on the product.   
Lately my responsibilities have been onboarding and mentoring a new hire along with identifying ways to streamline the code-base and reduce incoming tickets. Also doing work with b2b integrations that try to interact with SAP solutions and systems.   
  
My org:   
Devops model with a sprint’s and release every 4 months.   
We follow an agile model with stand ups every morning discuss roadblocks or issues.  
ITIL -> **Information Technology Infrastructure Library**  
At a conceptual level I know SAP follows ITIL practises in managing the organization so follow it in sense of capacity allocation or the release and deployment lifecycle.

Currently on my team I am one of the top performers. I have 320 incidents solved this year.   
So for a team of 4 others I am covering 30% - 40% of the work. It initially started as a team of 3 so it can be argued I am fulfilling all the work for ireland. The last few weeks I have been working on ticket loads and identifying common issues to fix for the next bucket for 2002.

Situation 1

**Situation ->** Performance improvement when viewing thousands of records on a SAP screen Task -> I had to bring down the time taken. It would fail and crash.  
**Task-> I** had to fix this particular issue  
**Action->** Developed a solution. Well tested one ie Pagination. Initially it went wrong because in breaking up the query I had the initially batches at 200. For huge amounts it still failed. To test I reduced the value for the object to 20 and created test data to query.  
**Result->** Issued a patch in the next release. Fixed an issue for the customer.  
  
Situation 2

**Situation ->** We have virtual documents within the cloud ERP system. We noticed an upsurge in tickets related to a particular root cause. It was due to a SCM specific code for goods moving within the European union. Called Incoterms  
**Task-> I** took the initiative to fix it as we noticed 40 incidents a year  
**Action ->** I refactored code related to the Purchase order screen and built an exception using an internal SAP framework. I used some case statements to break up the try catch logic.  
**Result->** We reduced our maintenance load.

Situation 3:

**Situation ->** we had needed more test coverage on certain Business objects in our area.   
A business object is a software representation of a real world business operation. Ie invoicing, sales order etc  
**Task->** I took the initiative to increase coverage. Arrange Act Assert.   
Arrange is initialize the object and set up the data. Act is to invoke the method with the data and assert is to evaluate the condition.   
**Action ->** I wrote unit tests at a very granular level. So as a team we wrote hundreds to execute in a few microseconds. I wrote a couple dozen.  
**Result->** Less bugs. We validated particular problematical data inputs. I also participated in front end and integration testing. Situation 4:

**Situation->** Error message library creation. We noticed a section of code they had hard-coded the error messages. It was making it harder to maintain. I refactored it.  
**Task->** I created an internal library for error messages in SAP.  
**Action ->**created a set of constants which contained the error messages. Used an existing SAP framework to output it to the front end. Wrote a set of try – catches and exceptions  
**Result->** Kept the same functionality yet made the code more maintainable.

Taken steps to learning new technologies.  
Java: Spring MVC -> restful app. Maven  
Javasript: Node.js, and libraries within that ie Express, npm etc  
I learned ABAP and python when in my respective roles.

I believe I show initiative to learn new concepts and introduce new processes.

For example test automation and integration testing. Wrote some unit tests.

**Test**

Lookup=  
Maximum size square sub-matrix with all 1se

Eg:

0 1 1 0 1

1 1 0 1 0

0 1 1 1 0

1 1 2 2 0

1 2 2 3 1

0 0 0 0 0

<https://www.geeksforgeeks.org/maximum-size-sub-matrix-with-all-1s-in-a-binary-matrix/>

Find in javascript

Check for balanced parentheses in an expression:   
this question appeared and I looked up below stackoverflow:  
<https://stackoverflow.com/questions/2509358/how-to-find-validity-of-a-string-of-parentheses-curly-brackets-and-square-brack>

animatable properties css  
check a sequence of strings java  
non-static variable this cannot be referenced from a static context

<https://www.lynda.com/JavaScript-tutorials/Use-functions-repeat-actions/508648/557869-4.html>

Add day(s) to a Date object [duplicate]:

<https://stackoverflow.com/questions/6963311/add-days-to-a-date-object>  
Question involved finding todays date and printing it back. Prepare.

How to select an id/element [HTML]

<https://stackoverflow.com/questions/14408891/getelementbyid-multiple-ids>

find the end of a node in a simple network, find the endpoint of a node in java

strong hashtag css

What is href=“#” and why is it used?: my stackoverlow search <https://stackoverflow.com/questions/4855168/what-is-href-and-why-is-it-used>

skip current step of loop javascript

dropdown list in html

Difference in break continue etc

System.exit(0, 1 , -1) know these.

active meaning in CSS  
active selector css: <https://www.w3schools.com/cssref/sel_active.asp>

compute multi sum codingame javascript  
Find multipes: <https://www.geeksforgeeks.org/sum-of-all-the-multiples-of-3-and-7-below-n/>

exit a loop javascript  
two dimensional array javascript  
checkbox html  
Input / form [HTML]  
table header tag in html  
how to style bold in css

TOP 30 Java Interview Coding Tasks

what does strict mean (javascript)

Css: span does <https://stackoverflow.com/questions/2491068/does-height-and-width-not-apply-to-span?rq=1> it is an inline element NO width or height

Look up selectors in css, .[, #, ] etc

one step forward 2 steps back: <https://codegolf.stackexchange.com/questions/160305/two-steps-forward-and-one-step-back>

java: <https://www.codingame.com/playgrounds/6991/linked-list-insertion-at-nth-position>

<https://www.amazon.com/TOP-Java-Interview-Coding-Tasks-ebook/dp/B07F8CKS2S#customerReviews>

compare strings:

<https://www.codingame.com/training/easy/mime-type>

css: <https://www.codingame.com/playgrounds/36092/exercices-css/introduction>

javascript:<https://www.codingame.com/playgrounds/9891/recursion-in-javascript-non-informative-content>

java:

<https://www.codingame.com/playgrounds/6723/applying-hateoas-to-a-rest-api-with-spring-boot>

<https://stackoverflow.com/questions/41292387/reccurence-algorithm-find-position-after-n-moves/41292630>

Binary Tree Search: <https://dev.to/thevenicelive/binary-tree-in-javascript-2n92>

<https://www.lynda.com/Web-Development-tutorials/Mastering-Web-Developer-Interview-Code/580663-2.html>

<https://www.lynda.com/JavaScript-tutorials/JavaScript-Functions/148137-2.html>

<https://app.pluralsight.com/library/courses/java-data-structures-implementing-understanding/table-of-contents>