*When you ask a usual software developer about ATG, most of them would probably say that they’ve never heard of it. So let’s get to it and throw some light on what ATG really is.*

***Shortly describe your project along with the used technology stack (1 point)***

*Firstly, describing the project that I’m assigned to, I’d say that it’s an ecommerce application that sells telecommunication services such as plan for your mobile phone, cable or satellite TV and other electronic devices, for instance, mobile phones of tablet PCs.*

*As you probably understood, it’s a typical ecommerce web application, moreover it’s based on the ATG platform or what it called now - Oracle Commerce.*

*ATG is a complex solution for ecommerce web sites that includes all the functionality that modern ecommerce web application needs. The kernel of ATG platform is nucleus – IoC container such as Spring or many others. All the beans in it are called components and are organized in hierarchy as a file system of our computers. “Data anywhere architecture” is used as an ORM. It’s based on maps where keys are the names of the fields and values are the values of the following fields. Another Java EE pattern that is used in ATG is MVC. Components of platform present different nodes of mvc. This architecture is quite complex so some components can be controller and model at the same time.*

*Furthermore, ATG includes a lot of other modules such as “Click to Call”, ATG Search module etc.*

***Which pros and cons each of the technologies have? (1 point)***

*The main disadvantage of the ATG platform is that it’s quite old and uses old technologies respectively. Also, working with this framework requires couple month just to learn the basics. Also, the main downside is that we could only use a version of Java that is compatible with the current version of ATG, for instance, now we use Java 6.*

*However, despite all the drawbacks, building an ecommerce web application is much easier and quicker than doing it from scratch. Most of the out-of-the-box components are reusable so we need to write custom components only when special business logic needs it.*

*The main opponent of ATG platform is Hybris – ecommerce platform based on Spring. It’s much younger than ATG, that’s why they use modern library as a core. However, ATG Nucleus and Spring Container can share their context so you can use Spring beans in ATG application or vice versa.*

***Give some alternative technologies (1 point)***

*In addition, we use Oracle WebLogic as an application server, Oracle DB as a database, mockito and junit for testing.*

*An alternative to WebLogic is JBoss. Those are both application server but JBoss is open source and it uses tomcat as a servlet container when WebLogic has its own. Another test tool is TestNG that is quite the same, but it is often used in data-driven testing. Oracle Db in comparison with MySQL is more complex and has more functionality, however MySQL is free to use when Oracle is a proprietary technology.*

*As a build tool we use ant. It’s old enough and not as easy as maven or gradle. Unlike maven, build process in ant can be easily changed. In comparison with gradle, ant probably has no advantages.*

***What is the hardest/most interesting bug you had to deal with? (1 point)***

*The most interesting bug that we faced was NullPointerException that we could not find in 3 days. This bug appeared when customer wanted to add product to cart from product detail page or from advertisement carousel. The price for the product counts by different components in one of which, that was in charge of promotions, Double value was returned. When there were no promotions, null was returned. Then this Double object was unboxed into double primitive and that’s when the bug occurred. The following NullPointerException was caught and wrapped in custom exception without saving cause so we had to debug all the way to find the reason.*

***Give a set of directions, which is the most preferable to you (2 points)***

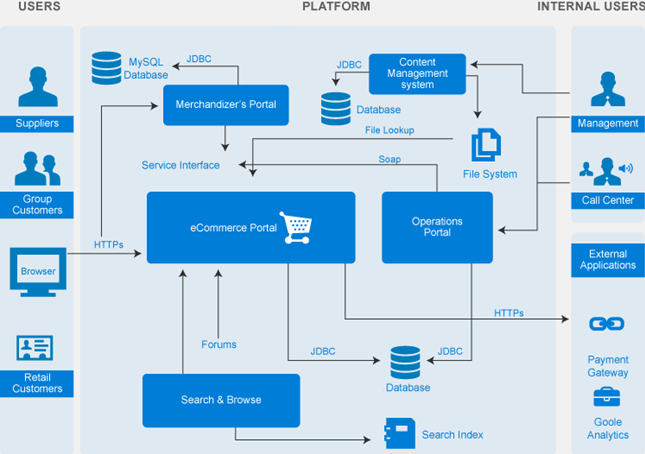
*Secondly, speaking about recent future, I want to get acquainted with NoSQL databases, Spring as a “must have” skill for all developers, play framework, Spring boot, JHipster and probably the long term plan is to learn Scala.*

***Which books/courses (or other) are you going to read/pass to improve skills (1 point)***

*Finally, I want “Spring in Action” to be my next book because I want to get the full picture of Spring in addition to the cdp program.*

***Draw high level architecture of your application (2 points)***

*And there is a picture of high level architecture of our application. Most ATG-based applications are built likewise:*

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