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Department of Computer Science

Bellissimo Retrospective Report

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1. Explain the process that you followed to add the feature to the existing application.
To complete phase 2 of Bellissimo the following additional features were added:
 - 1.1 Created a snapshot of the current code base.
 - 1.2 Backup the snapshot on the repository (GIT) - to be rolled back to when the addition functionality breaks the existing code.
 - 1.3 Adding cart: add new functionality by following the development methodology used when developing in the first phase. Cart database table was created, which has as a foreign Ids User ID and product ID. Additionally, we re-used logic to make cart repository, controller and links for user interface.
 - 1.4 Adding user profile: Created user table in the database. Furthermore, Exposed the logic to edit user profile. Subsequently used similar logic from previously implemented functionality like adding or editing products stored.
 - 1.5 The methodology used: develop, test, package, commit to repository, and finally documentation
2. Describe the difficulties you faced when implementing the new features after the first phase was completed.
 - 2.1 Ensuring that foreign keys used in the other tables were accessible and correctly named so that tables that need those Ids can access them.
3. Describe the aspects of the new features that you found easy to implement.
 - 3.1 Creating database tables and using JPA to access database information
 - 3.2 Exposing the links to the new application functionality became easier since it is like the way it was done in the first phase.
 - 3.3 Adding items on the basket was easy because there was an existing framework already built during phase one.
 - 3.4 We leverage from the existing backend and database setup during phase one
 - 3.5 Adding items to the basket when purchasing was made easier by using items already created on phase one
4. Briefly describe the software architecture of your implemented system - if it has changed over time describe how it evolved.
 - 4.1 The software architect has not changed. We still maintained two modules; springboot as a backend and the angular2 as the user interface.
 - 4.2 Angular2 was used to build user interface, angular2 calls restful springboot which in turn calls postgres database.
5. In what way was the architecture you have used in the first phase accommodating / hindering the implementation of the additional features? Give specific details.
 - 5.1 The monolithic architecture was used in phase 1 implementation. Microservices architecture was introduced in phase 2 as there were services that were supposed to be composed like checking the customer credit.

6. Regardless of what architecture you have actually used, indicate what architecture you deem to be the most appropriate for the system you have implemented. Take the original specification of the system as well as the required changes into consideration in your answer. Give justification for your opinion.

- 6.1 The monolithic architecture is the most preferable option for the implementation of Bellissimo system. This conclusion is based on the scope of work that was provided for the implementation, the application is not exposed to the 3rd party (bank system) directly.

