**Project Code Assignment**

**Shirisha Jakkidi**

**Professional Seminar CS699E**

**David Pitts**

**Implementation Languages**

The languages I am using in my project’s implementation include Python (Flas Framework), HTML/CSS with Bootstrap, and JavaScript.

**Python**: I chose Python’s Flask framework because of its simplicity and familiarity. Although there are other Python frameworks suitable for web applications, such as Django, I have always found Flask simple to use. Flask is also lightweight and flexible and has libraries that make it efficient when building web applications.

**HTML/CSS with Bootstrap**: For the front end, I am using HTML and CSS with Bootstrap. The reason I chose Bootstrap is because it allows me to structure pages and content effectively. The framework is also helpful in ensuring that the e-commerce platform I am building is mobile-responsive.

**JavaScript**: JavaScript will help add dynamic behavior and interactivity to the project’s pages. I believe that JavaScript will help enhance user experience, such as by adding smooth transitions and showing the necessary popups.

**Software Platforms Used in Implementation**

I am using several platforms to build the website. They include the PyCharm IDE, MySQL database system, and Apache Web Server, which I am accessing via XAMPP. The PyCharm IDE provides tools that make website development very efficient. I always find it very useful when working on Python projects. For a long time, I have been using XAMPP. XAMPP is very efficient since it eliminates the need to install web servers and database management systems separately. It gives me access to MySQL DBMS and Apache Server without installing them separately. It is also easy to create and manage databases with XAMPP.

**Code Modules**

My class diagram for the project presentation includes various classes, including Customer, Staff, Purchases, Offers, Offer Purchases, Products, Loyalty Points, and Purchases. Currently, I have implemented the code for various aspects of the Customer Class, which include user authentication (registration, login, and logout). I have also developed a page for customer home page that will be developed further to reflect aspects such as viewing of products, purchases, notifications, offers, and loyalty points. All modules and aspects of other classes will be implemented in due course.

**Code for Business Logic**

So far, I have written the code that handles customer authentication into the system. This includes aspects such as user registration, login, and logout. The code is able to validate user input, handle failed login, and redirect them to the relevant pages, including the customer homepage. More business logic will be implemented as the development of the application advances. The code is available on GitHub and can be accessed via <https://github.com/shirisha546/CS699EtsyProject>.