**Assignment 2:** Develop a case study analyzing the implementation of SDLC phases in a real-world engineering project. Evaluate how Requirement Gathering, Design, Implementation, Testing, Deployment, and Maintenance contribute to project outcomes.

While developing a project there are different phases involved in it to complete the project, which are

* Requirement Gathering
* Design
* Implementation
* Testing
* Deployment
* Maintenance

Let’s assume we are building an e-commerce application.

**Requirement Gathering:**

* The requirement of the project will be known in the requirement gathering.
* To build the e-commerce application we need to know the required features.
* Like what are they going to sell in the website and how does they want the application to look.

**Design:**

* The frontend of the application will be designed according to the user requirement.
* The interface of the application will be designed here.

**Implementation:**

* The project will be built according to requirement and will be in working condition.

**Testing:**

* The project will be tested with different scenarios.
* Checks if there is any case where the project will throw error.
* If the project throws error sends it back to design or implementation.
* If project doesn’t throw any error, then the project will be deployed.

**Deployment:**

* Here the project will be deployed into real world environment.
* The users can use the project after deployment.

**Maintenance:**

* The project will be maintained even after deployment.
* Because an error can occur at any time or the load on the server may increase.
* When any kind problem occurs in project it will be rectified.