**Design Phase**

* **System Architecture: Implement a 3-tier architecture with front-end, middleware, and database**[**16**](https://opus.govst.edu/cgi/viewcontent.cgi?article=1536&context=capstones)
* **Technology Stack:**
  + **Front-end: HTML, CSS, JavaScript, Bootstrap for responsive design**[**16**](https://opus.govst.edu/cgi/viewcontent.cgi?article=1536&context=capstones)
  + **Back-end: Java with JSP and JDBC**[**16**](https://opus.govst.edu/cgi/viewcontent.cgi?article=1536&context=capstones)
  + **Database: MySQL for data storage**[**16**](https://opus.govst.edu/cgi/viewcontent.cgi?article=1536&context=capstones)
* **UML Modeling: Create diagrams to visualize system functionality**[**14**](https://www.ijrrjournal.com/IJRR_Vol.11_Issue.8_August2024/IJRR53.pdf)
  + **Use Case Diagrams: Define user interactions**
  + **Activity Diagrams: Map workflows for login, ordering, inventory management**
* **User Interface Design: Create mockups for three different views**[**14**](https://www.ijrrjournal.com/IJRR_Vol.11_Issue.8_August2024/IJRR53.pdf)
  + **Mobile view for customers**
  + **Tablet view for baristas**
  + **Desktop view for cafe owners**