COIMBATORE INSTITUTE OF TECHNOLOGY

(Government Aided Autonomous Institution Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

Department of Computing

20MSS65 – Software Engineering CAT II Documentation

Laptop Recommendation system

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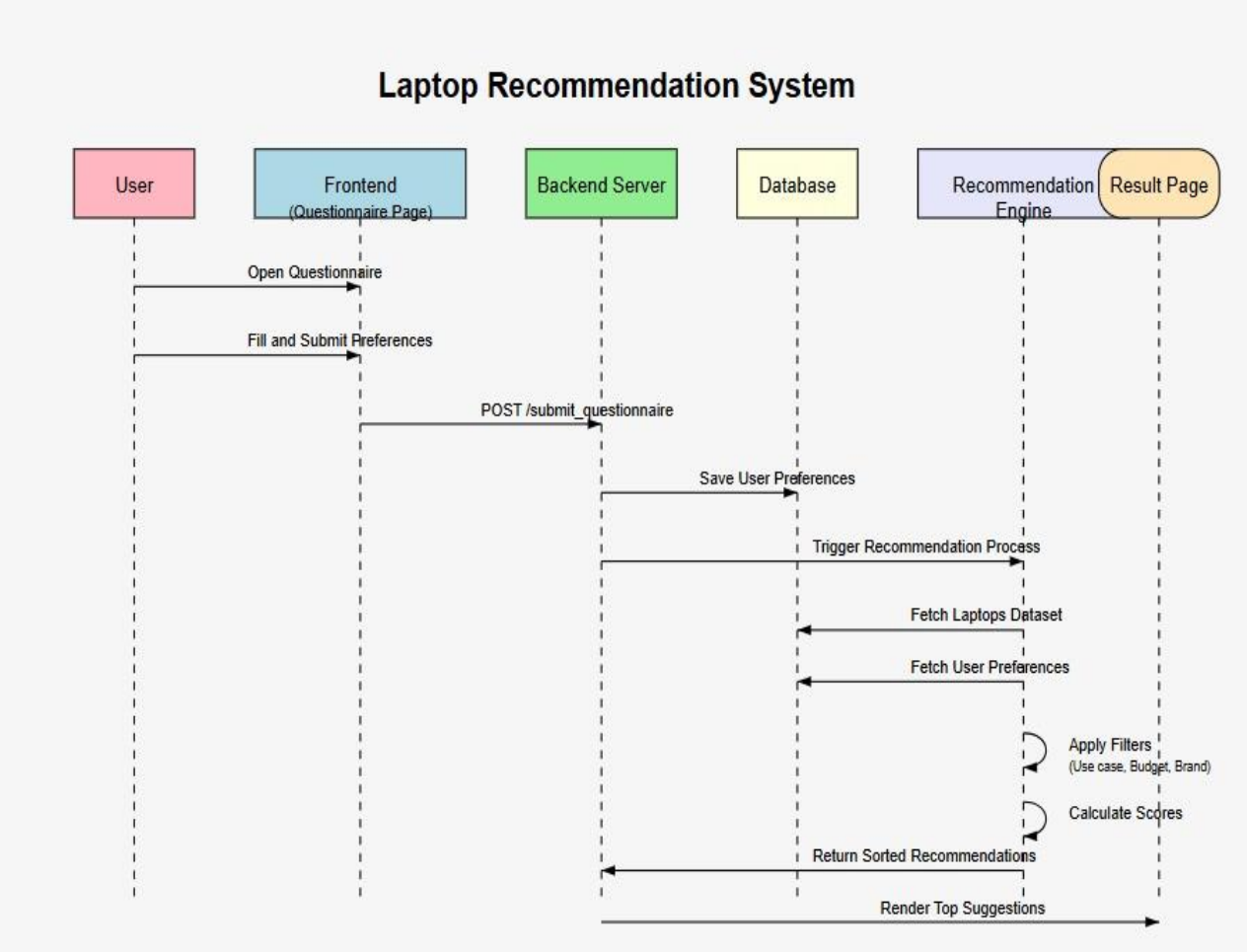
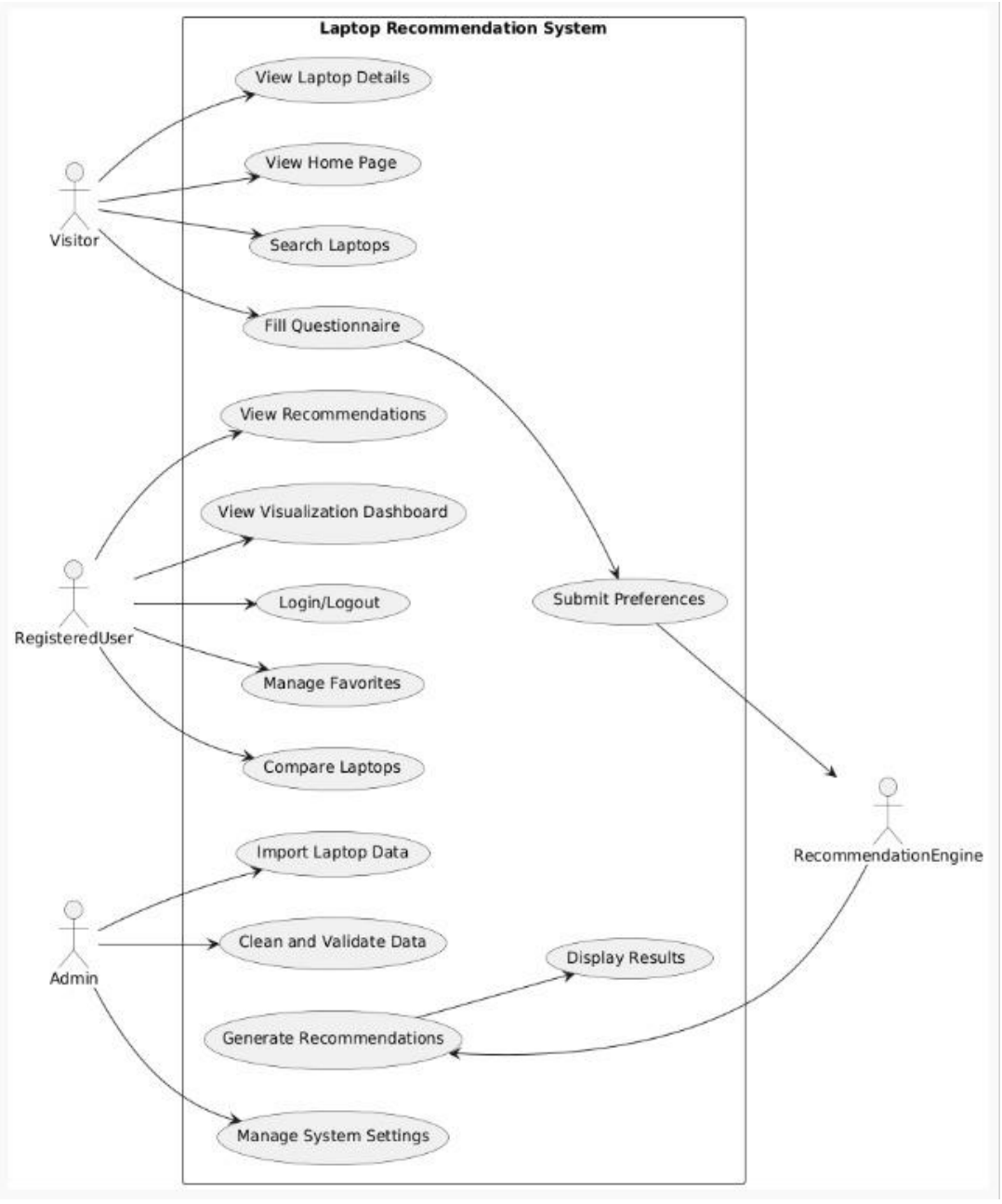
Problem Statement

Finding the right laptop is challenging due to the wide variety of brands, specifications, and price ranges. Users often struggle to identify the best option based on their specific needs. The **Laptop Recommendation system** addresses this by offering a smart system that either accepts direct search or collects user preferences through a questionnaire, applies intelligent filters, ranks laptops, and provides personalized recommendations. It also allows users to favorite laptops and compare multiple options, simplifying the decision-making process.

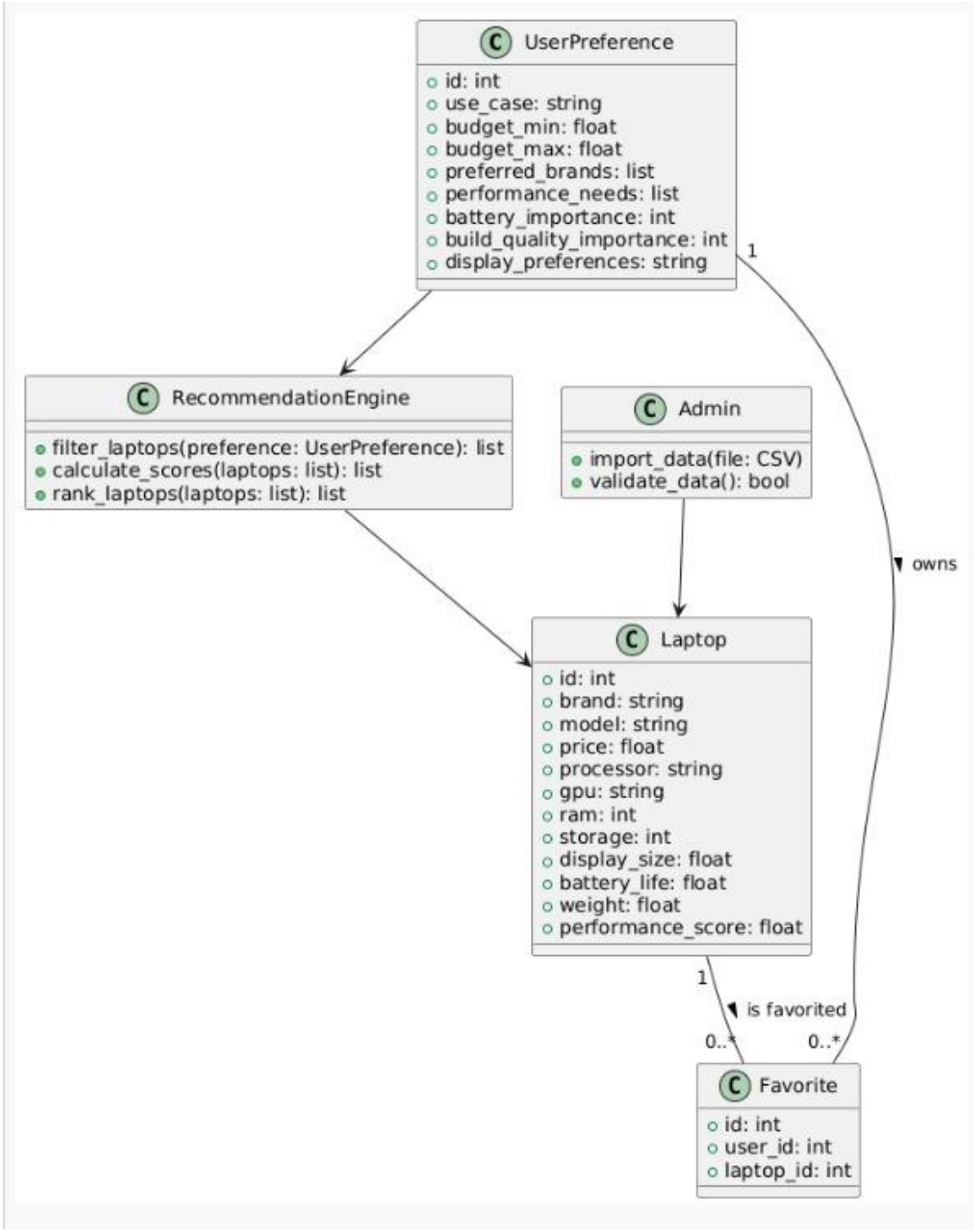
1.'Sequence Diagram



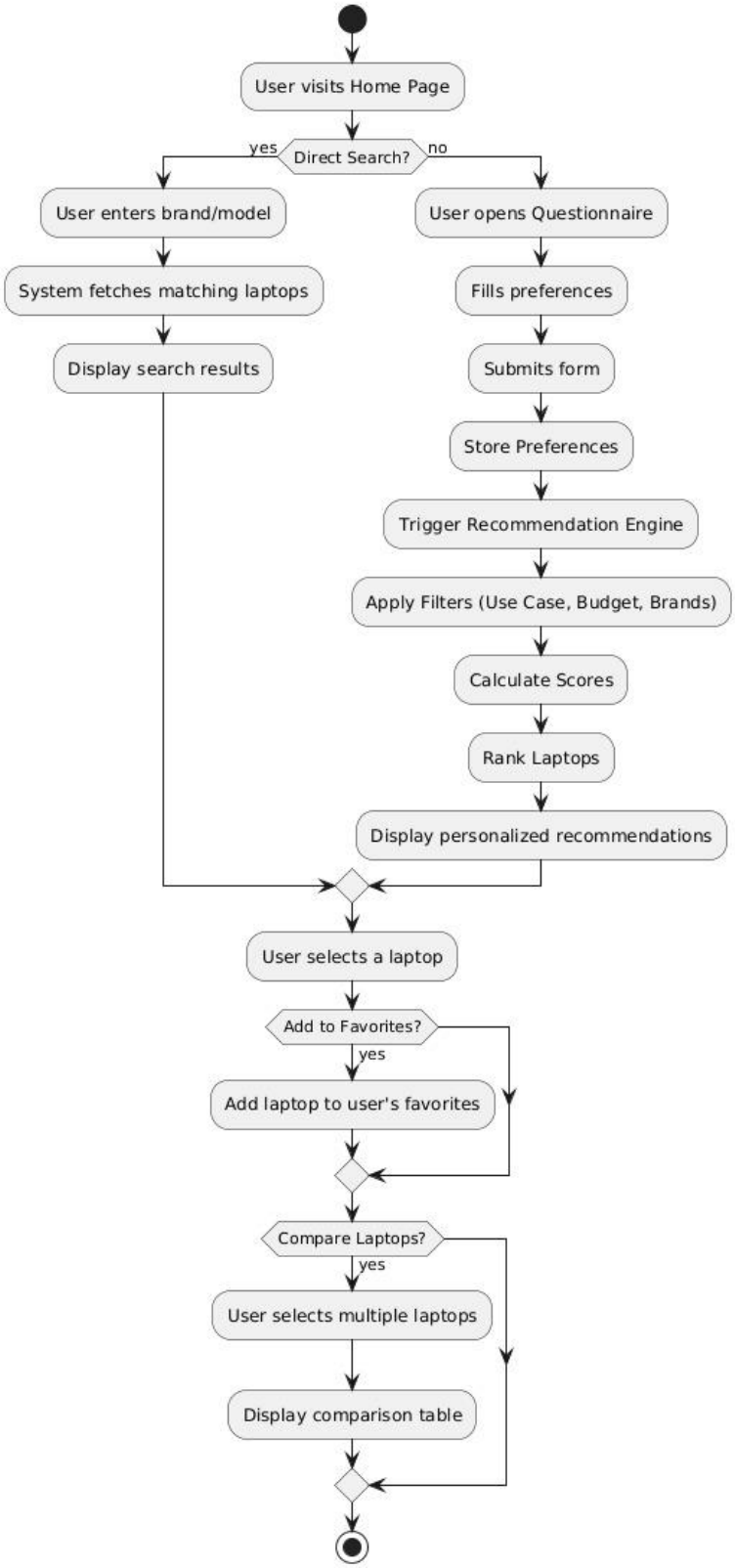
2.Use Case Diagram



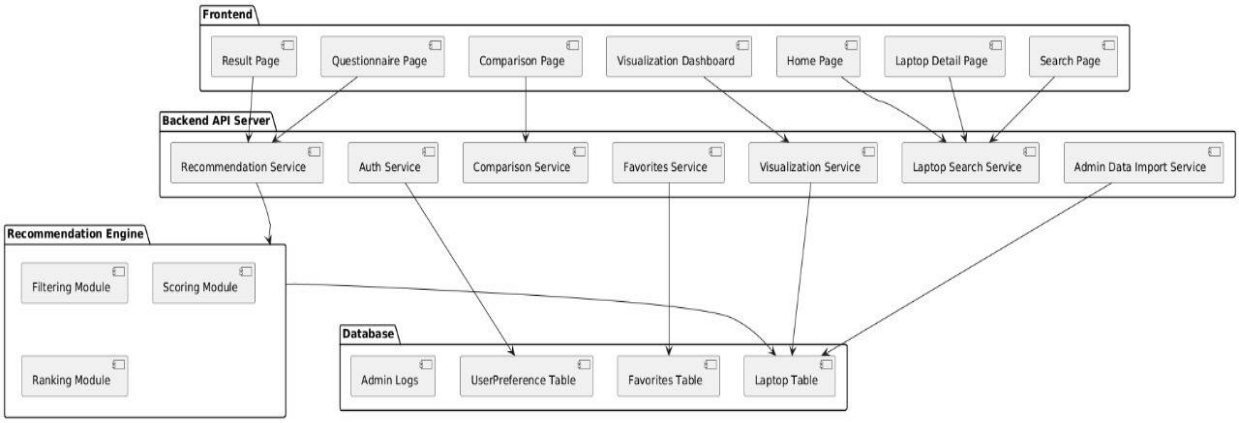
3..Class Diagram



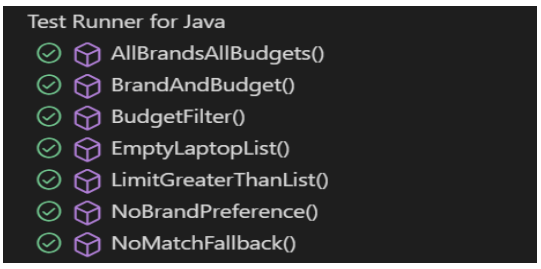
4..Activity Diagram



5.Component Diagram



6.Junit test Summary

- **BrandAndBudget:**
  Verifies that only laptops matching the preferred brands and within the specified budget are recommended.
- **NoBrandPreference:**
  Checks that the recommender considers all brands when no brand preference is given.
- **BudgetFilter:**
  Ensures only laptops within the user's budget are recommended.
- **NoMatchFallback:**
  Confirms the recommender falls back to all laptops if no brand matches are found.
- **EmptyLaptopList:**
  Validates that an empty laptop list returns no recommendations.
- **LimitGreaterThanList:**
  Checks that the recommender does not return more laptops than are available
- **AllBrandsAllBudgets:**
  Tests that the recommender works correctly with no brand or budget restrictions.

7.Test Result