

# Chatbot German University Application Project Handover Document



**Software Engineering**  
**Summer Semester 2024**

## **Group M**

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# 1. Introduction

This document serves as a hand-over guide for the "Chatbot German University Application" project undertaken during the Summer Semester 2024. The primary focus of this project is to develop and test a chatbot application that helps users find suitable German universities based on their preferences. This handover document provides an overview of the project setup, testing summary and key observations for the next team to take over.

## 2. Project Overview

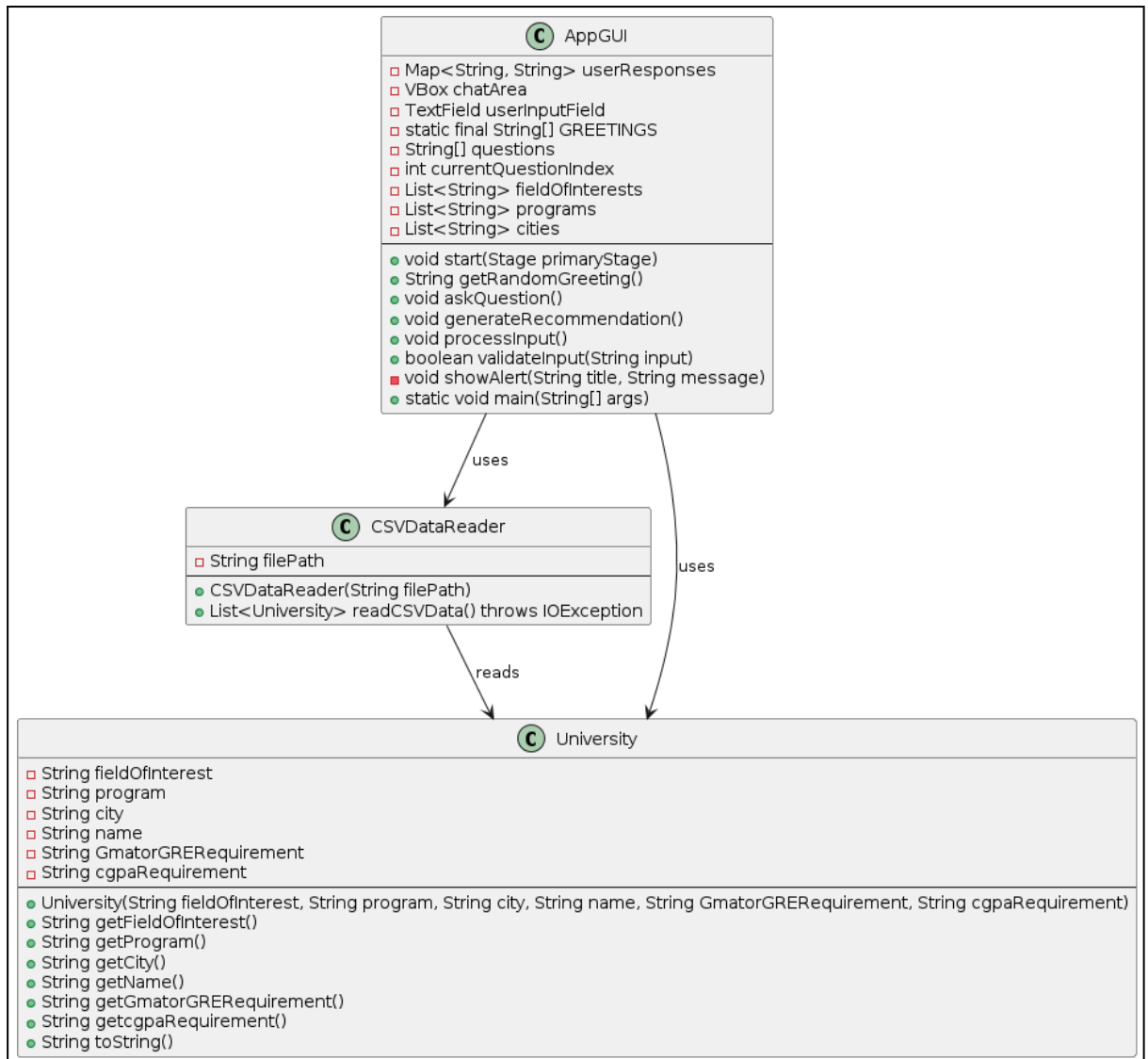
- **Objective:** Develop a chatbot application to recommend German universities based on user inputs.
- **Technologies Used:** Java, JavaFX, Apache Commons CSV, JUnit 5, Gradle.
- **Repository:**  
<https://se-git.medien.uni-weimar.de/se-lectures/se-sose-2024/chatbot-german-university-application>
- **Build Tool:** Gradle

## 3. Application Functionality

- **Main Screen:** Displays the initial question: "What is your field of interest?"
- **User Input:** Sequentially asks users for their field of interest, desired program, and preferred city.
- **Recommendations:** Generates and displays university recommendations based on user inputs.
- **Error Handling:** Provides alerts for invalid inputs and guides users to provide correct information.

## 4. UML Diagram

Below is the UML diagram representing the class structure and relationships within the project.



## 5. Testing Summary

Testing for the "Chatbot German University Application" project was conducted using both white-box and black-box testing methods to ensure the application functions as expected and handles various edge cases appropriately.

### Black-Box Testing

- **Focus:** Application functionality from a user perspective.
- **Tools Used:** Manual testing
- **Key Tests:**
  - Application Launch
  - Main Screen Display

- Valid and Invalid User Inputs
- University Recommendations
- Error Handling for Edge Cases

### **White-Box Testing**

- **Focus:** Internal logic and code structure.
- **Tools Used:** JUnit 5
- **Key Tests:**
  - Constructor and Getter Methods
  - Setter Methods
  - Edge Case Handling (Empty and null inputs)

## **6. Contact Information**

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