ENGI 9838 - Assignment 2

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For this assignment, each **team** is responsible for the design of their module in their chosen project. The design of the module should also include a suite of tests to be written to thoroughly test the given module. You can see more details about such a design and architecture at:

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https://blog.dreamfactory.com/restful-api-and-microservices-the-differences-and-how-they-work-together/
,https://medium.com/the-software-design-blog/an-introduction-to-rest-apis-and-microservices-ea9477699b73,
orhttps://learn.microsoft.com/en-us/azure/architecture/microservices/design/interservice-communication.
```

Deliverables for Assignment 2

1. **System Architecture & UML Diagrams:**
   - **Class Diagram** for core modules
   - **Use Case Diagram** for user interactions
   - **Sequence Diagram** for key workflows
2. **Test Plan & Suite:**
   - Unit tests (e.g., JUnit for backend logic, Espresso for mobile UI tests)
   - API tests (if microservices are used)
3. **Justification of Design Choices:**
   - How the transition to microservices will happen if it will?
4. **Team Contribution & Documentation:**
   - Roles of each team member
   - Summary of each person's contribution

Each **team** is to submit a report detailing their design. Though there are no page-length requirements for the reports, they should be thorough and explain the reasoning for any design choices made in that team's design. Each team should also detail the contributions of each team member in the report and there will be opportunity for individual team members to evaluate others in their team in terms of participation and contribution to the design.