Mobile Computing – Project 4
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- Alignment with Guardian angel:
  The main aspect of the project is the outcome shared to user as to whether they should continue of trek or not which is dependent of the design of fuzzy controller I worked on.

- Specifications:

The fuzzy controller I worked on is **Mamdani** controller with the following parameters:
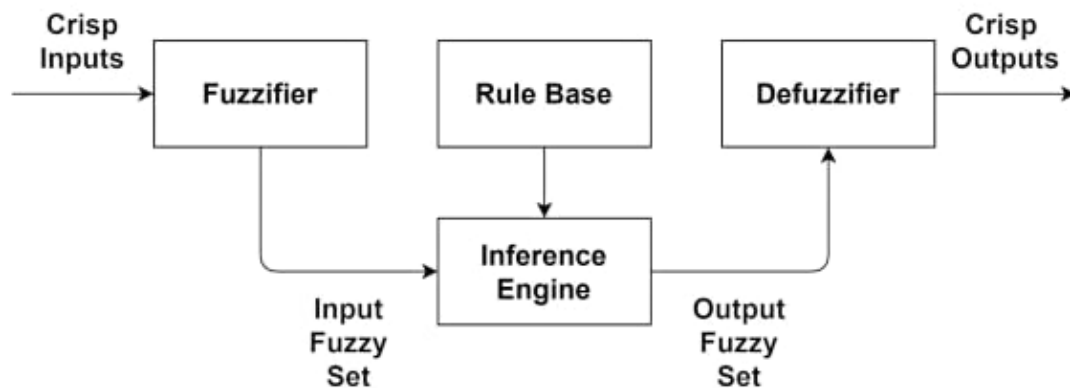1. Altitude (Range: 0 – 8848m)
2. Health Score (0-1, 0: high risk; 1: low risk)
3. Heart Rate (0-140bpm)
4. Respiratory Rate (0-20rpm)
5. Oxymeter Reading(0-100)
6. Weather Fuzzy (0-100; 0 => bad weather, 100: good weather)

Output Parameter: Continue or descent
Close to 1 => Continue
Close to 0 => Descent

- Design:

- Testing strategies:

Unit Testing:
Employ MATLAB's testing framework or third-party tools for unit tests on individual functions or components. I have added handful of assertions in `call_test.m` file.

Integration Testing:
Verify the interaction and integration of code components to ensure proper functioning specifically via Android.

Error Handling:
Confirm graceful handling of errors and exceptions, providing meaningful messages.

Documentation and Peer Review:
Ensure comprehensive documentation, and conduct peer reviews for insights and code quality assurance.

- Navigating Challenges: Acknowledge and briefly address encountered challenges, emphasizing adaptive strategies and lessons learned
    - Challenges encountered:
    Creating inference rules for complex challenges requires a lot of complexity understanding and flow control logic
    - Lessons learned:
    Establish control flow diagrams for easier rule inference.