1. **Introduction:**
   1. **Project Scope:**
   2. **User Classes and Characteristics:**
   3. **Assumptions And Dependencies:**
2. **Functional Requirements:**
   1. Feature vector extraction: For feature vector extraction we require the CNN model. For our project we are going to use 2D CNN model for feature extraction.
   2. Video sequence: For video sequence we need the webcam. Which will capture the gesture/moment of user’s hand.
   3. Gesture classification: For classification we required RNN model. We will be using LSTM model for gesture classification.
   4. Mapping gesture to OS operation: For Mapping particular gesture to perform OS navigation operation we will need the OpenCV library.
3. **Non-Functional requirements:**
   1. **Performance Requirement:**
   2. **Hardware Interface:**
   3. **Software Interface:**
4. **External Interface Requirements:**
   1. User Interfaces: User need to the perform the valid gesture to navigate through operating system.
   2. Hardware Interface: Webcam is required for capturing the video stream of the user who is performing the gesture. And webcam should have recording speed of 30 FPS at least
   3. Software Interface: OpenCV is require for mapping the particular gesture to the OS navigation operation.
5. **System Requirement:**
   1. Software Requirements:
      1. Operating System: Windows 10.
      2. Programming Language: Python.
      3. Library: OpenCV, TensorFlow, Pandas, Numpy.
   2. Hardware Requirements:
      1. CPU: DUO core (of 4 generation or above).
      2. Ram: 4GB or above.
      3. Graphic Card (for training & testing and neural network ): GT 1050 or Intel 520.
      4. Storage: 500GB HDD or SDD.
      5. Webcam: should able to recording at 30FPS (Frame Per second).
6. Analysis Modes:
7. System Implementation: