System Sequence Diagram

The Use Case Description is diagrammatically depicted in the System Sequence Diagrams. They show the stepwise implementation of the functions of the use cases. The sequence diagrams highlight the interaction between the various actors. Following are the System Sequence Diagrams which represent the Use Case Descriptions.

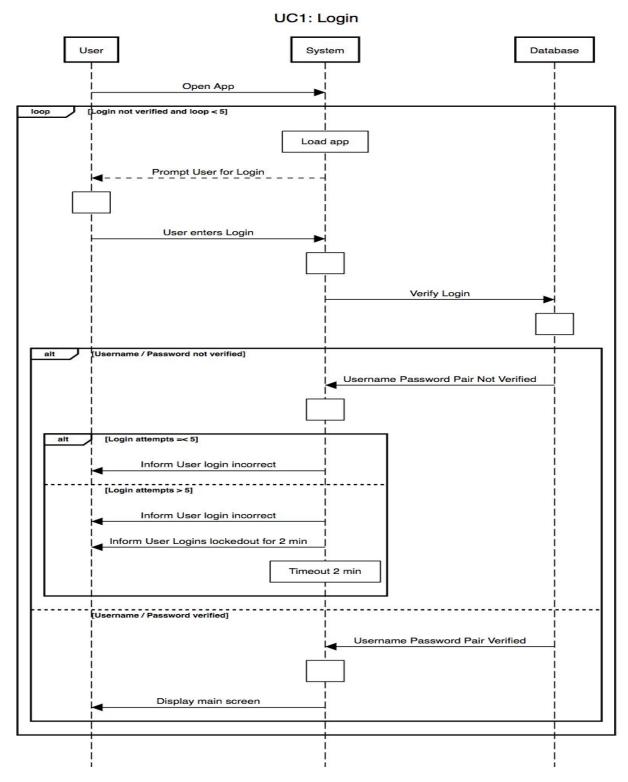


Fig 6: UC 1: Login

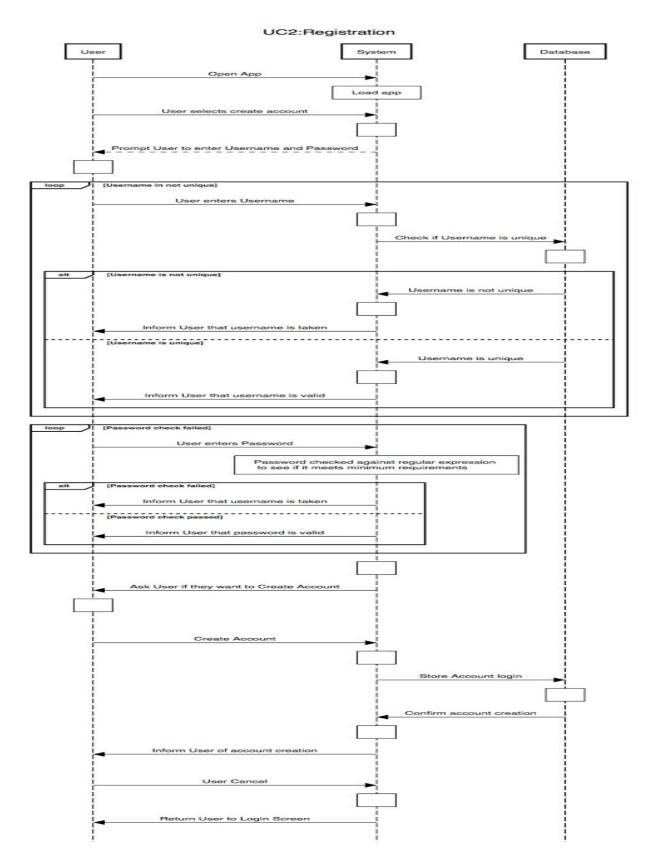


Fig 7: UC2: Registration

UC 3:Manage Account

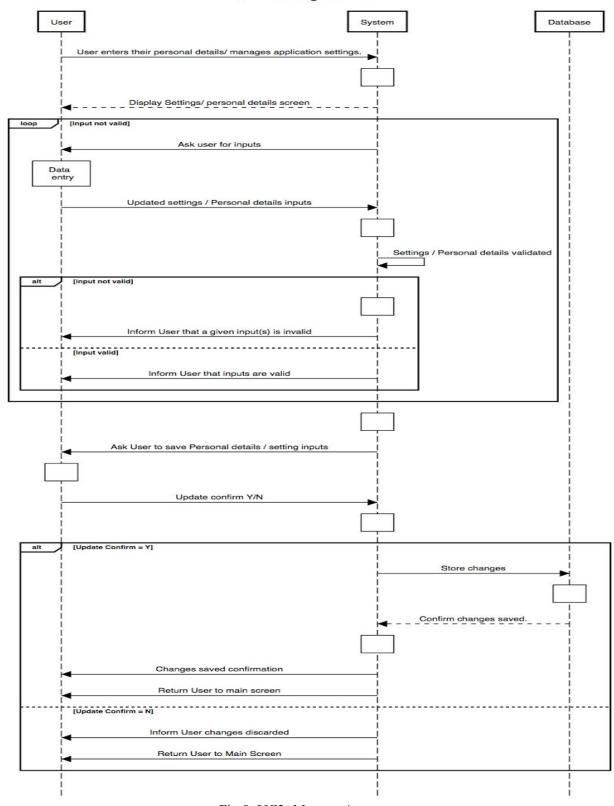


Fig 8: UC3: Manage Account

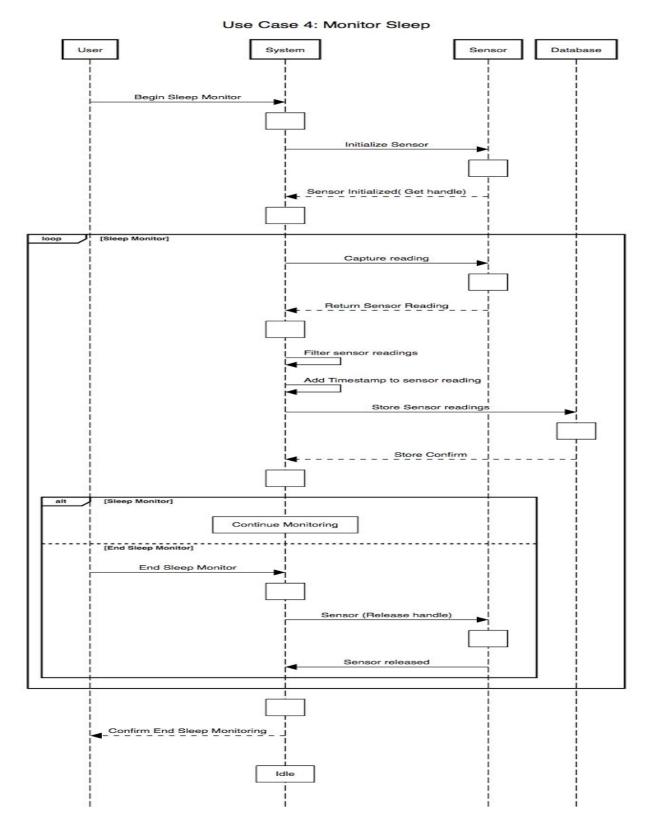


Fig 9: UC4: Monitor sleep

Use Case 5: Anomaly Detection Anomaly Detector User Database System Get User details (Age, Gender, location, etc) Return User details Get sleep records of other Users in same demographic Return sleep records of other Users in same demographic Use other Users' records as training and cross validation sets Get User sleep records Return User sleep records Pass User sleep records into Anomaly Detection Algorithm [Anomaly Detected] **Anomaly Detected** Log Anomaly Anomaly log confirmed Inform User of Anomaly Acknowledge Anomaly [No Anomaly detected] Idle

Fig 10: UC 5: Anomaly Detection

Idle

Use Case 6: View Statistics

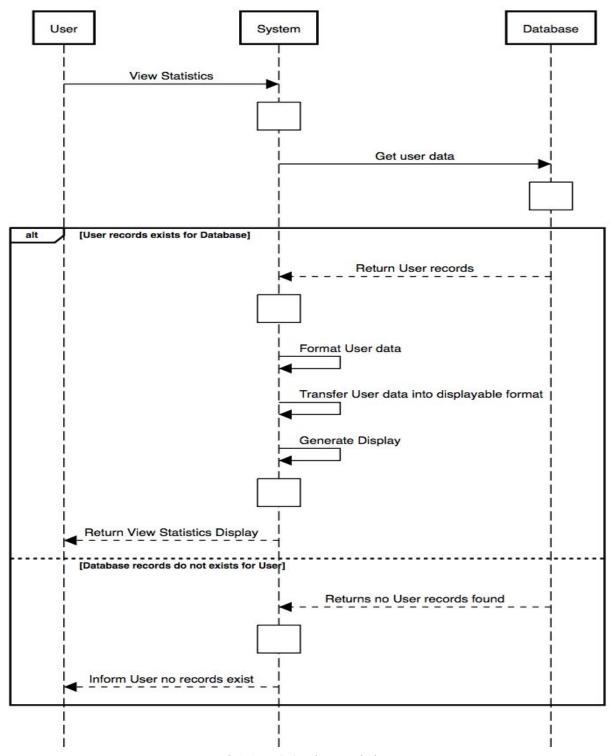


Fig 11: UC 6: View statistics

UC 7: Recommender

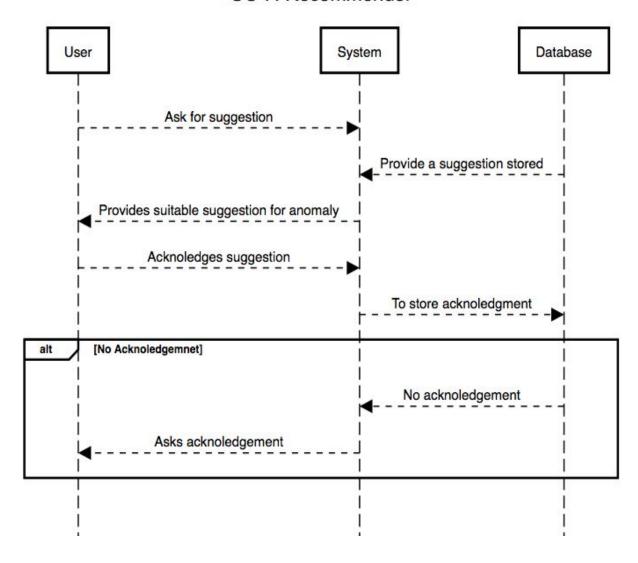


Fig 12: UC 7: Recommender

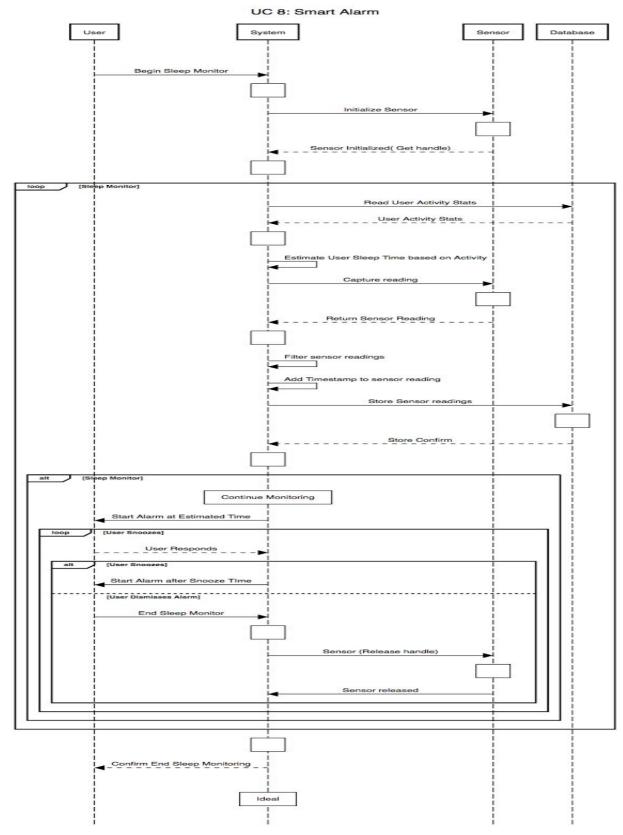


Fig 13: UC 8: Smart Alarm

UC 9: Eat

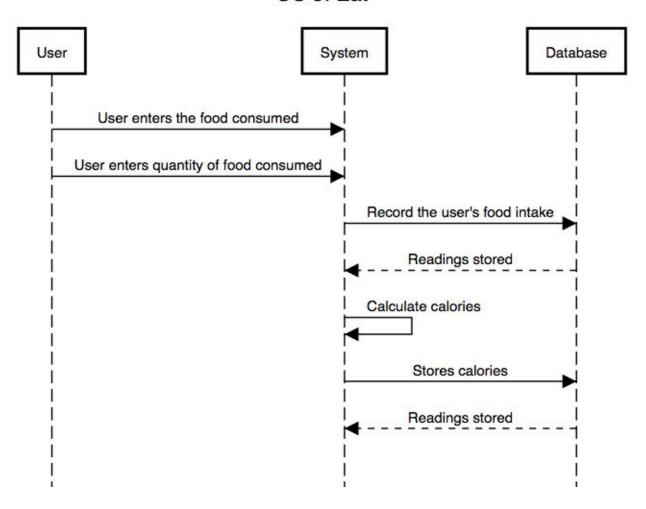


Fig 14: UC 9: Eat

UC 10: Exercise

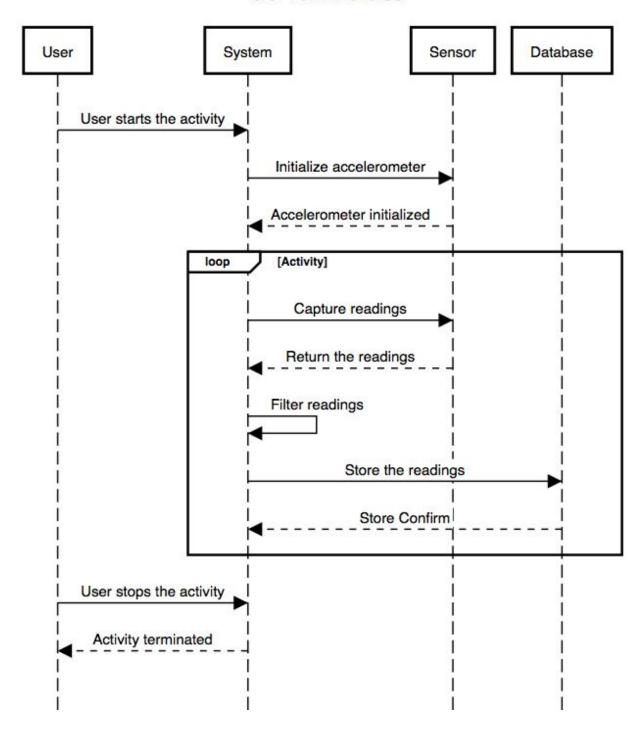


Fig 15: UC10: Exercise