functionalities of the developed software:

1) Facial recognition and smart people flow monitoring 2) Smart sleep monitoring and alerting 3) Smart detection of uneasy movement in the patient and alerting 4) Gender classification 5) Facial emotion detection

1) Face recognition: Provided a folder named with patients name provided with 4 images of the patients the face recognise app train over with the provided folders and recognise them if algorithm couldn't recognise it name them as unknown

2) Smart sleep monitoring and alerting: Smart sleep monitoring and alerting system is able to monitor a person's sleeping pattern by calculating how much time he has uninterrupted sleep, how many times his sleep has been interrupted, his total sleeping time and if there are more interruptions in his sleep we can trigger an intimation to the caretakers to comfort the patient. It works by detecting the eyes and calculating eye aspect ratio (ear), if ear is less than 0.3 for a certain threshold then the algorithm assumes the patient is sleeping and calculates the patients sleeping time.

3) Smart Detection on the uneasy movement in the patient and creating an alarm: Here the algorithm tracks every minute movement of the patient on the bed and within certain time threshold if there is any rigorous movement it will detect and trigger a notification that the patient is in distress. This algorithm works under the principle of calculating area and number of blobs which have been created due to change in two consecutive image frames.

4)Gender classification: Here we can predict a person is man or female using cnn trained gender classifier

5) Facial emotion detection: Here we can predict six emotions (i.e. Happy, Sad, Anger, Disgust, Surprise and neutral) by using pre-trained classifiers that has been deployed in the cloud.

Conclusion: I had successfully implemented all the above proposed hacks keeping in mind the Scalability, Speed of performance, Ease of access and Ease of implementation and mainly work over the web streaming feed