

Assignment – 2

Design an agent for the smart hospital environment, where the agent is responsible for the collection of health parameter data from patients in remote locations. This agent also has the capability to detect the basic disease through the analysis of the observed symptoms and is responsible for informing the hospital authority if any irregularity in the symptoms is observed. As an AI engineer, you should design an agent that has the following capabilities:

- a. Collection of different symptoms from multiple patients.
 - b. Gather experience from the analysed symptom data.
 - c. Capability of performing the analysis over different symptoms for the detection of basic diseases.
1. Design the system diagram of the agent for the given scenario and also discuss its PEAS and task environment.
 2. Discuss its searching capability to detect a disease through different symptoms. (for any one disease, for example: COVID-19, HIV, malaria, hepatitis B)
 3. Write the algorithm and analyse its complexity.
 4. Write the code for the agent in Python or Java. An Excel or CSV file containing the observed symptoms is provided as an input. The output of the programme is a detailed patient-wise report for the detected disease name and its conditions or status (severe, effected, normal).

N.B.: 1. Agent structure, algorithm, analysis, and basic discussion must be handwritten on A4-size paper.

2. By March 28, 2024, submit your code for this agent. You may create a group with a maximum of five participants to present your code.