

## Experiment 2

Aim:- Understanding PEAS with an application.

### Theory:-

PEAS is an acronym that stands for Performance measures, Environment, Actuators, and Sensors. The PEAS framework provides a structured way to describe the key components and aspects of an agent's behavior and its interaction with its environment.

#### 1. Performance Measures:

This component defines the criteria or metrics used to evaluate the success or effectiveness of an intelligent agent's behavior. It specifies how well the agent is performing within its environment and achieving its goals.

#### 2. Environment:

The environment represents the external context or surroundings in which the intelligent agent operates. It encompasses all the entities, objects, events, and conditions that the agent interacts with or is influenced by.

#### 3. Actuators:

Actuators are the mechanisms or devices through which an agent interacts with the environment. actuators can include physical components like motors, limbs, or display screens, as well as virtual interfaces that allow the agent to influence the environment.

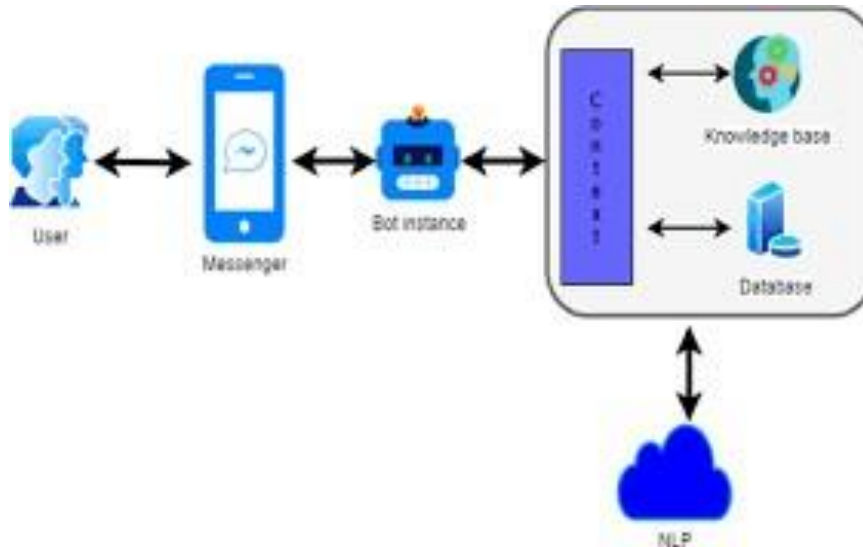
#### 4. Sensors:

Sensors are the input devices that allow an agent to perceive or gather information about its environment. sensors can range from cameras and microphones to more specialized sensors for specific applications.

PEAS descriptor for Automated Weather Forecasting System:

- Performance Measure: Accuracy of weather predictions.
- Environment: Atmosphere, climate data, satellite imagery.
- Actuators: Display of weather forecasts, alerts.
- Sensors: Temperature sensors, humidity sensors, satellite data.

#### State Space Diagram:



Conclusion: Hence, we successfully understood PEAS via Applications.