**NAME**

**MUZAMIL SHABEER**

**SECTION**

**BS AI– 3C**

**TASK (3)**

**PART NUMBER 1**

**TOPIC**

**Model base agent file**

**OUTPUT**

**(base) PS C:\Users\hp\Documents\AI LAB> & C:/Users/hp/anaconda3/python.exe "c:/Users/hp/Documents/AI LAB/practice.py"**

**enter your tem=23**

**enter your tem=34**

**enter your tem=45**

**living room: 23 action------> trun on**

**drawing room: 34 action------> trun on**

**kitchen room: 45 action------> trun on**

**EXPLANATION**

* this is a model temperature agent program.  
  in which i have created a class named **modelagent** that works like an agent to check temperature and take action.
* in which i have used a constructor that takes **fixed** temperature and also **creates a file** to save history. it also makes an **empty dictionary** to store temperature with their action.
* in which there is a **sensor method** that takes user input temperature. if the temperature is already in dictionary then it returns the saved action otherwise it checks the temperature: if temperature is greater or equal to threshold then action is **turn on**, if less than fixed then action is turn off. it also saves the result in dictionary and text file.
* in which there is an **actuator method** that prints the user temperature and its action.  
  in which there is a call\_history method that prints the dictionary of all temperatures and also reads the file to show saved history.
* in the main program, an object of modelagent is created with threshold **temperature 16**. user enters temperatures for living room, drawing room and kitchen room. for each room, sensor method decides action and actuator method prints it. **finally call\_history** shows full history.