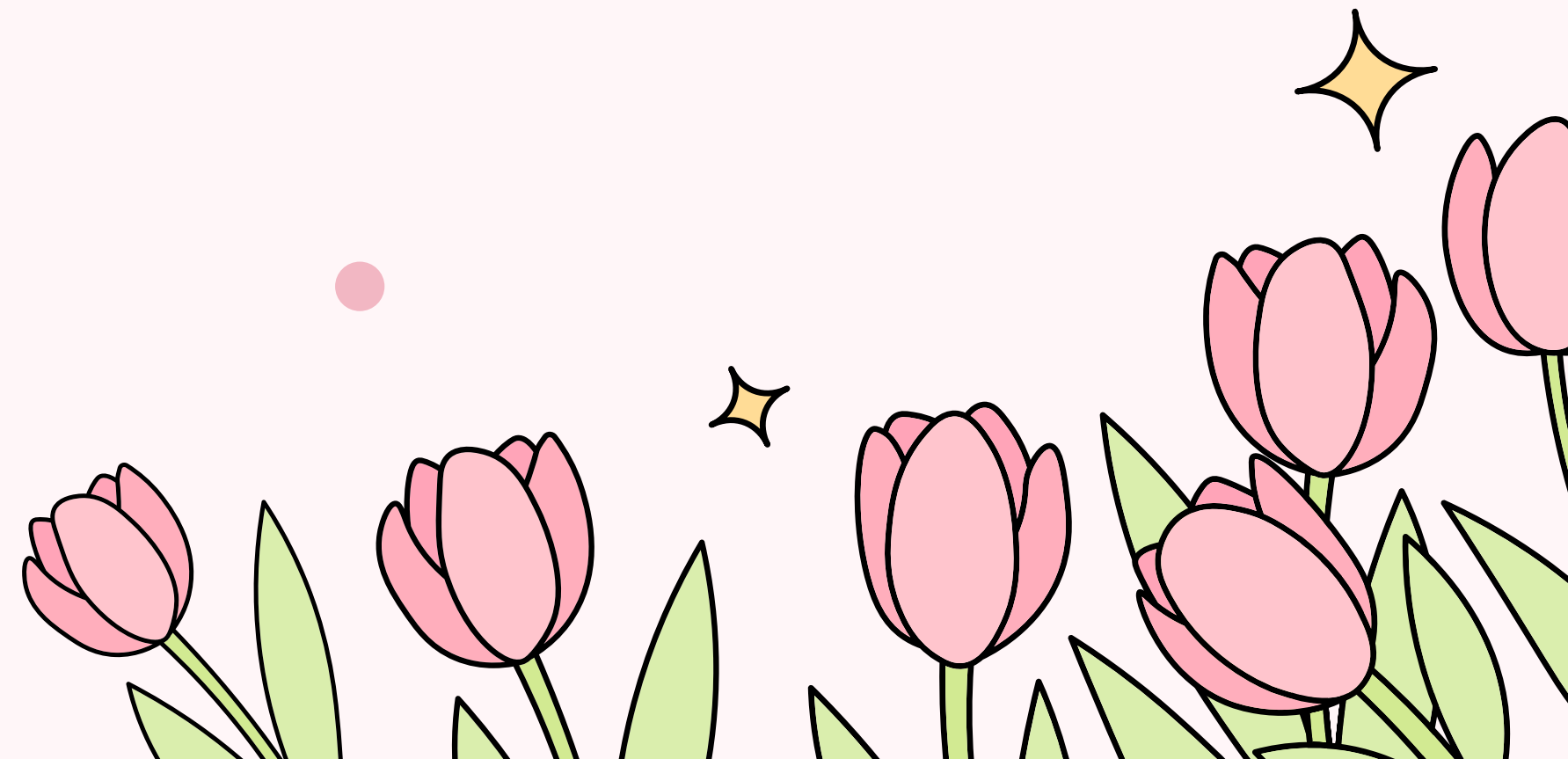# Tic-Tac-Toe

Our Team

Menna Baligh

section 6

Menna Hamada

section 6

Hagar AbdElSattar

section 7

Problem Formulation

1- intial state : an empty 3*3 board

2- Actions : put X or O in any empty cell

3-Transition model (Successor): after taking action the board is updated to reflect the new state

Problem Formulation

4- Goal test : if a player has 3 X or O in a row or column or diagonal

5- Path cost : not critical the goal is to win or draw

Agent Design (PEAS)

Performance : win by selecting the move bring it closer to win and in the worst case the result is draw

Environment : 3*3 tic-tac-toe board

Agent Design (PEAS)

Actuators: An agent can mark any open square with their sign

Sensors : read the current state of the board and identify the legal moves

Environment Properties (ODESDA)

1- fully observable
2- Deterministic
3- sequential
4- static
5- Discrete
6- Multi-Agent (competitive)

Agent Type

Goal Based Agent

Thank You