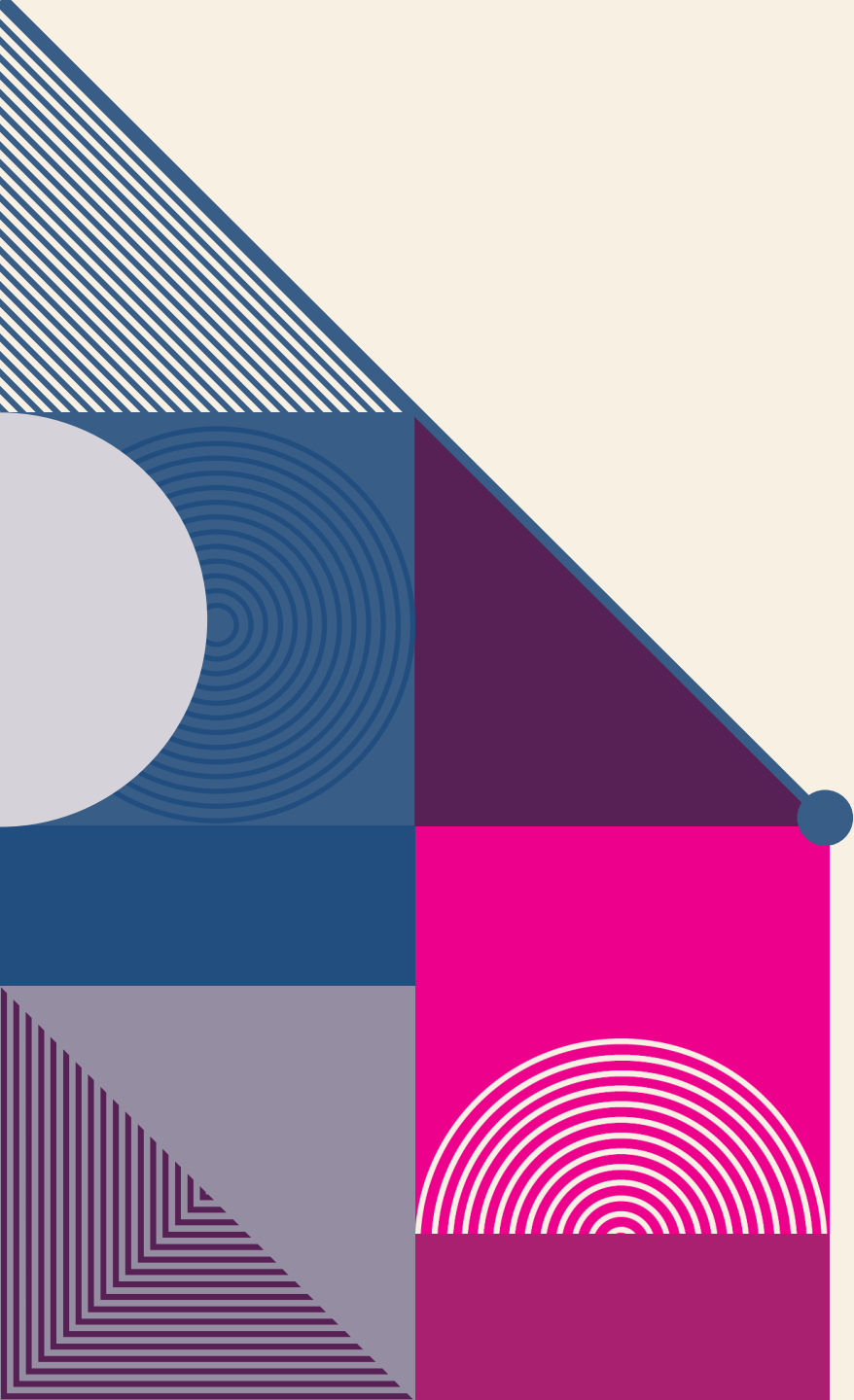




ARTIFICIAL INTELLIGENCE PROJECT PROPOSAL

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TOPIC:

SOLVING RUBIK'S CUBE OF 3X3X3 BY USING REINFORCEMENT Q-LEARNING



OBJECTIVE:

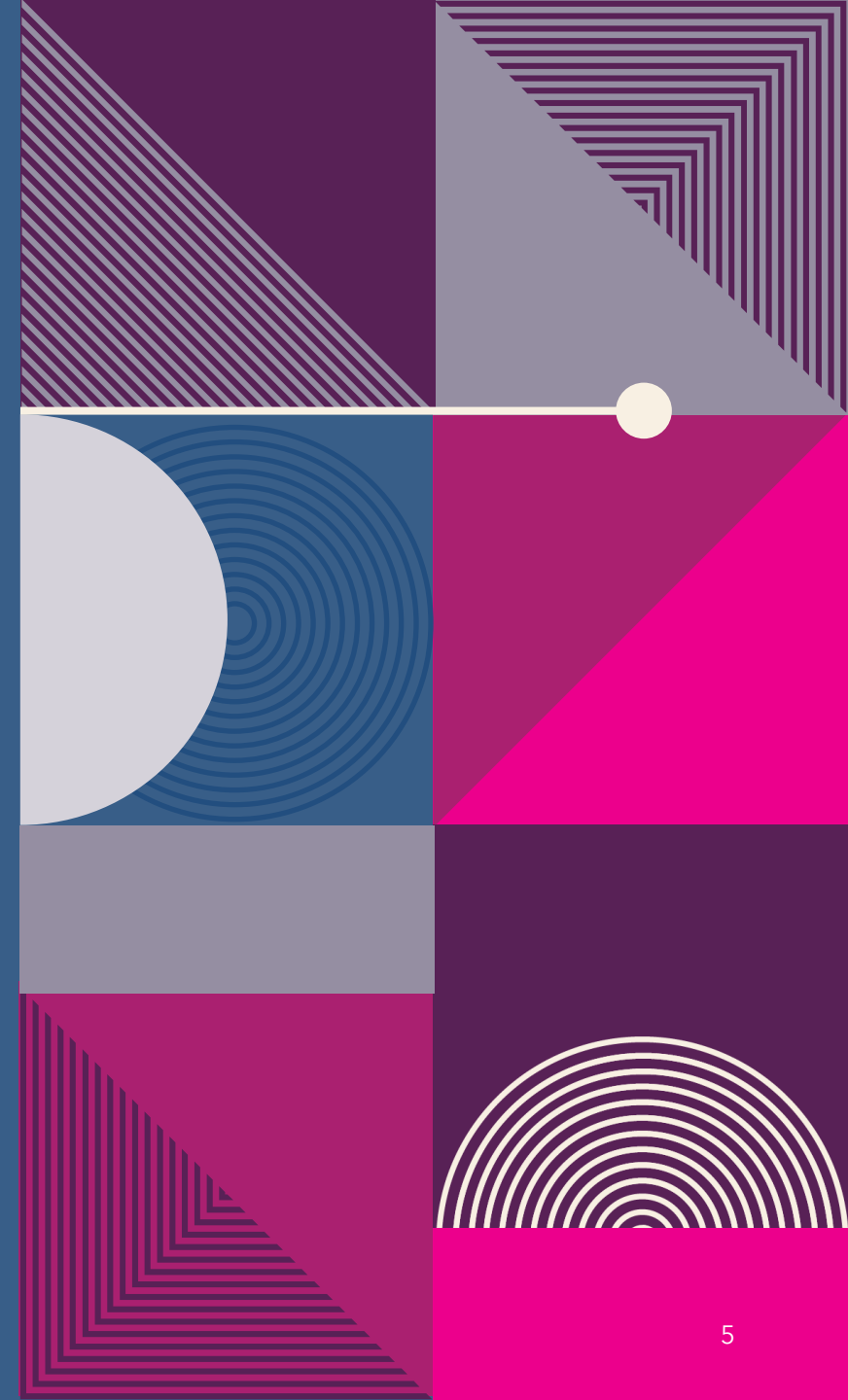
- **SOLVE THE RANDOM RUBIK'S CUBE USING THE Q-LEARNING ALGORITHM.**
- **ANALYZE THE PERFORMANCE IN TERMS OF REDUCED TIME, FEWER MOVES, AND EFFICIENCY IN SOLVING THE CUBE.**
- **VISUALIZE THE AGENT'S LEARNING PROCESS.**
- **ANALYZE THE CODE USING DIFFERENT N VALUES IN THE MAIN FILE.**

APPROACH

- **STATE SPACE**
- **ACTION SPACE**
- **Q-LEARNING**
- **REWARD FUNCTION**
- **EXPLORATION AND EXPLOITATION STRATEGY**

EVALUATION METHODOLOGY

- SUCCESS RATE IS SUCCESSFULLY SOLVES THE CUBE WITHIN THE NO OF MOVES.
- Q- VALUE CONVERGENCE
- PATTERN DATABASE REGISTRATION





DELIVERABLES

- The main file containing the code.
- The supporting files to run the main file to solve the cube.
- README file to follow the instructions to execute the program.
- Uploading the file in github.