TIC TAC TOE

Submitted in the partial fulfillment for the award of the

degree of

BACHELOR OF ENGINEERING

IN

B.E. CSE

Here is where the
presentation begins

INTRODUCTION

1. Tic-tac-toe, also called noughts and crosses (in the British Commonwealth countries), Xs and Os (in Ireland) and X and o (in India) is a pencil-and-paper game for two players, X and O, who take turns marking the spaces in a 3×3 grid. The player who succeeds in placing three respective marks in a horizontal, vertical, or diagonal row wins the game.The followinxoPlayers soon discover that best play from both parties leads to a draw (often referred to as cat or cat's game). Hence, tic-tac-toe is most often played by young children.The friendliness of tic-tac-toe games makes them ideal as a pedagogical tool for teaching the concepts of good sportsmanship and the branch of artificial intelligence that deals with the searching of game trees. It is straightforward to write a computer program to play tic-tac-toe perfectly, to enumerate the 765 essentially different positions (the state space complexity), or the 26,830 possible games up to rotations and reflections (the game tree complexity) on this space

What is JAVA?

1. Java is a multi-platform, object-oriented, and network-centric language. It is among the most used programming language. Java is also used as a computing platform. It is considered as one of the fast, secure, and reliable programming languages preferred by most organizations to build their projects.
2. Here are some important Java applications:
3. It is used for developing Android Apps
4. Helps you to create Enterprise Software
5. Wide range of Mobile java Applications
6. Scientific Computing Applications
7. Use for Big Data Analytics
8. Java Programming of Hardware devices
9. Used for Server-Side Technologies like Apache, JBoss, GlassFish, etc.

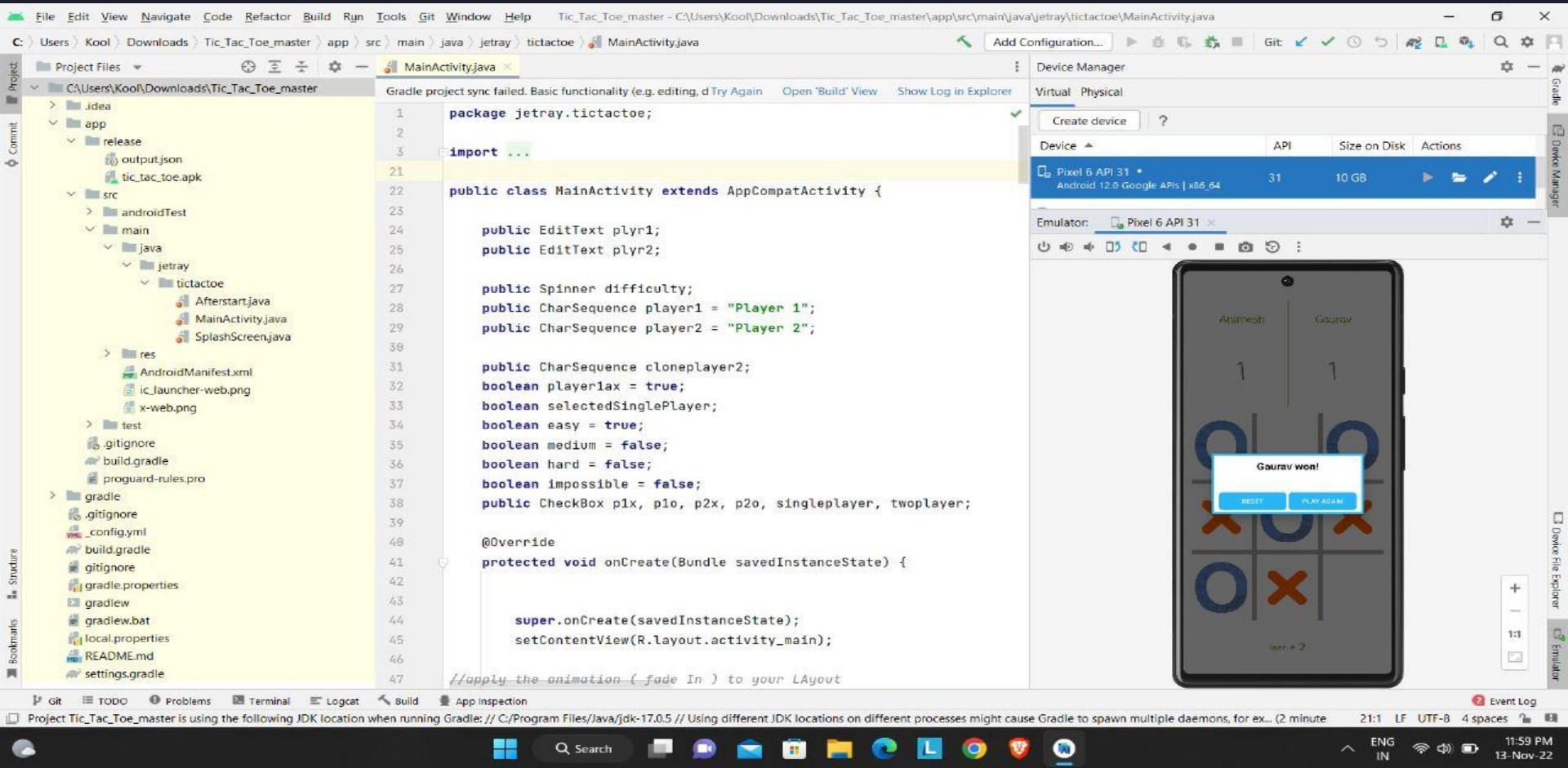
OPERATORS

1. Once we know of the existence of variables and constants, we can begin to operate with them. For that purpose, C++ integrates operators. Unlike other languages whose operators are mainly keywords, operators in C++ are mostly made of signs that are not part of the alphabet but are available in all keyboards. This makes C++ code shorter and more international, since it relies less on English words, but requires a little of learning effort in the beginning.1. Assignment (-)The assignment operator assigns a value to a variable.A-512.Arithmetic operators (+, -, *, 1, %)The five arithmetical operations supported by the C++ language are:addition,subtractionmultiplicationdivision16 modulo3.Relational and equality operatorsEqual toNot equal to

STRATEGY

1. Optimal strategy for player X. In each grid, the shaded red X denotes the optimal move, and the location of O's next move gives the next subgrid to examine. Note that only two sequences of moves by O (both starting with center, top-right, left-mid) lead to a draw, with the remaining sequences leading to wins from X.A player can play perfect tic-tac-toe (win or draw) given they choose the first possible move from the following list.Win: If the player has two in a row, he or she can place a third to get three in a row.Block: If the [opponent] has two in a row, the player must play the third himself or herself to block them.Fork: Creation of an opportunity where the player has two threats to win (two non-blocked lines of 2).Blocking an opponent's ork:Option 1: The player should create two in a row to force the opponent into defending, as long as it doesn't result in them creating a fork. For example, if "X" has a corner, "O" has the center, and "X" has the opposite corner as well, "O" must not play a corner in order to win. (Playing a corner in this scenario creates a fork for "X" to win.) Option 2: If there is a configuration where the opponent can fork, the player should block that fork.Center: A player marks the center. (If it is the first move of the game, playing on a corner gives "O" more opportunities to make a mistake and may therefore be the better choice; however, it makes no difference between perfect players.)Opposite corner: If the opponent is in the corner, the player plays the opposite corner.

CODE


File Edit View Navigate Code Refactor Build Run Tools Git Window Help
Tic_Tac_Toe_master - C:\Users\Kool\Downloads\Tic_Tac_Toe_master\app\src\main\java\jetray\tictactoe\MainActivity.java
Project Files
C:\Users\Kool\Downloads\Tic_Tac_Toe_master
.idea
app
release
output.json
tic_tac_toe.apk
src
androidTest
main
java
jetray
tictactoe
Afterstart.java
MainActivity.java
SplashScreen.java
res
AndroidManifest.xml
ic_launcher-web.png
x-web.png
test
.gitignore
build.gradle
proguard-rules.pro
gradle
.gitignore
_config.yml
build.gradle
gitignore
gradle.properties
gradlew
gradlew.bat
local.properties
README.md
settings.gradle
MainActivity.java
Gradle project sync failed. Basic functionality (e.g. editing, d Try Again Open 'Build' View Show Log in Explorer
package jetray.tictactoe;
import ...
public class MainActivity extends AppCompatActivity {
public EditText plyr1;
public EditText plyr2;
public Spinner difficulty;
public CharSequence player1 = "Player 1";
public CharSequence player2 = "Player 2";
public CharSequence cloneplayer2;
boolean player1ax = true;
boolean selectedSinglePlayer;
boolean easy = true;
boolean medium = false;
boolean hard = false;
boolean impossible = false;
public CheckBox p1x, p1o, p2x, p2o, singleplayer, twoplayer;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
//apply the animation (fade In) to your LAyout
Device Manager
Virtual Physical
Create device
Device API Size on Disk Actions
Pixel 6 API 31
Android 12.0 Google APIs | x86_64
31
10 GB
Emulator: Pixel 6 API 31
Animesh
Gaurav
Gaurav won!
RESET
PLAY AGAIN
Git TODO Problems Terminal Logcat Build App Inspection
Event Log
Project Tic_Tac_Toe_master is using the following JDK location when running Gradle: // C:/Program Files/Java/jdk-17.0.5 // Using different JDK locations on different processes might cause Gradle to spawn multiple daemons, for ex... (2 minute
21:1 LF UTF-8 4 spaces
Search
ENG IN
11:59 PM 13-Nov-22

File Edit View Navigate Code Refactor Build Run Tools Git Window Help Tic_Tac_Toe_master - C:\Users\Kool\Downloads\Tic_Tac_Toe_master\app\src\main\java\jetray\tictactoe\MainActivity.java

C: Users Kool Downloads Tic_Tac_Toe_master app src main java jetray tictactoe MainActivity.java

Add Configuration... Git:

Project Files

C:\Users\Kool\Downloads\Tic_Tac_Toe_master
- .idea
- app
  - release
    - output.json
    - tic_tac_toe.apk
  - src
    - androidTest
    - main
      - java
        - jetray
          - tictactoe
            - Afterstart.java
            - MainActivity.java
            - SplashScreen.java
      - res
      - AndroidManifest.xml
      - ic_launcher-web.png
      - x-web.png
    - test
  - .gitignore
  - build.gradle
  - proguard-rules.pro
- gradle
- .gitignore
- _config.yml
- build.gradle
- gitignore
- gradle.properties
- gradlew
- gradlew.bat
- local.properties
- README.md
- settings.gradle

MainActivity.java

Gradle project sync failed. Basic functionality (e.g. editing, d Try Again Open 'Build' View Show Log in Explorer

```
1  package jetray.tictactoe;
2
3  import ...
21
22 public class MainActivity extends AppCompatActivity {
23
24     public EditText plyr1;
25     public EditText plyr2;
26
27     public Spinner difficulty;
28     public CharSequence player1 = "Player 1";
29     public CharSequence player2 = "Player 2";
30
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33     boolean selectedSinglePlayer;
34     boolean easy = true;
35     boolean medium = false;
36     boolean hard = false;
37     boolean impossible = false;
38     public CheckBox p1x, p1o, p2x, p2o, singleplayer, twoplayer;
39
40     @Override
41     protected void onCreate(Bundle savedInstanceState) {
42
43
44         super.onCreate(savedInstanceState);
45         setContentView(R.layout.activity_main);
46
47 //apply the animation ( fade In ) to your LAyout
```

Device Manager

Virtual Physical

Create device ?

Device	API	Size on Disk	Actions
Pixel 6 API 31 • Android 12.0 Google APIs | x86_64	31	10 GB	

Emulator: Pixel 6 API 31

Git TODO Problems Terminal Logcat Build App Inspection Event Log

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/MADE BY

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/THANKS!