Advanced Tic Tac Toe - GUI Screens

1. Login Screen

- Features:
- - New CLOSE button terminates application
- - Input validation for empty fields
- - 'Remember Me' saves username (not password)

2. Signup Screen

SIGN UP	
[Username] [Email] [Password] [Confirm PW]	
[REGISTER]	[BACK]

- Validation Rules:
- - Password match check
- - Email format validation
- - Username availability check

3. Main Menu

```
MAIN MENU

[☐ Play vs AI ]

[  Play vs Player ]

[  Game History ]

[  Logout ]
```

4. Al Difficulty Selection

```
SELECT AI DIFFICULTY

[ EASY ] - Random moves

[ MEDIUM ] - Blocks wins

[ HARD ] - Unbeatable

[ BACK ]
```

5. Player vs Player Setup (NEW)

```
PLAYER VS PLAYER SETUP

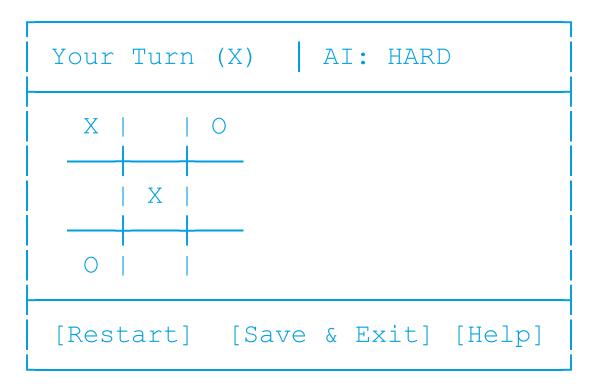
Player 1 (X): [_____]

Player 2 (O): [_____]

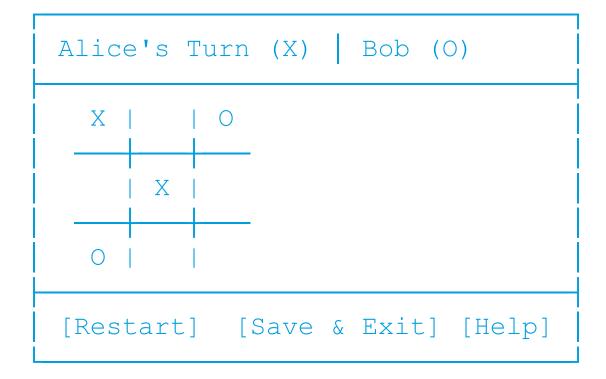
[ START GAME ] [ BACK ]
```

6. Game Board

6.1 vs AI Mode



6.2 PvP Mode



- 6.1 vs AI Mode
- 6.2 PvP Mode (Names update dynamically)

7. Game Result Screen (UPDATED)

GAME OVER!

YOU WIN! (vs AI: HARD)

Moves: X-5 | 0-4

Time: 2m 15s

[PLAY AGAIN]

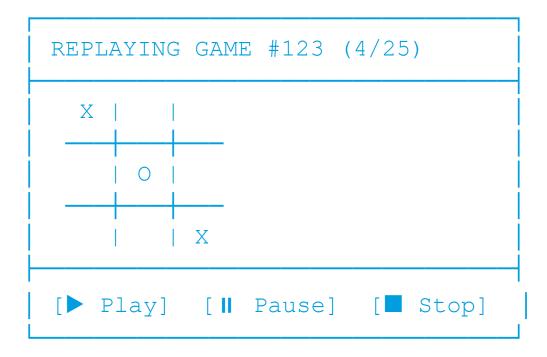
[MAIN MENU]

[GAME HISTORY]

8. Game History Dashboard

GAME HISTORY		
Date	Opponent	Result
4/25 4/24 4/23	AI (Hard) Bob AI (Easy)	Win Loss Tie
[Replay] [Delete] [Back]		

9. Replay Viewer



Screen 1: Login

Code Description

GUI-101 Display username/password fields

with "Remember Me" checkbox

GUI-102 Validate inputs (non-empty,

password ≥ 8 chars)

GUI-103 Buttons: LOGIN (\rightarrow Main Menu),

SIGN UP (\rightarrow Screen 2), CLOSE

(quit app)

Screen 2: Signup

Code Description

GUI-201 Fields: Username, Email,

Password, Confirm Password

GUI-202 Real-time validation for email

format and password match

GUI-203 Buttons: REGISTER (auto-login →

Main Menu), BACK (→ Login)

Screen 3: Main Menu

Code Description

GUI-301 Buttons with icons:

- Play vs AI (→ Screen 4)

- **1** Play vs Player (→ Screen 5)

- ☐ Game History (→ Screen7)

- ☐ Logout (→ Login)

Screen 4: AI Difficulty

Code Description

GUI-401 Radio buttons:

- EASY (random moves)

- MEDIUM (blocks 1 move ahead)

- HARD (minimax algorithm)

GUI-402 BACK (\rightarrow Main Menu), START (\rightarrow

Screen 6)

Screen 5: PvP Setup

Code Description

GUI-501 Input fields: Player 1 (X),

Player 2 (O)

GUI-502 START button (disabled if names

empty) → Screen 6

Screen 6: Game Board

Code Description

GUI-601 PvP Mode: Show [Player1]'s Turn

(X) / [Player2]'s Turn (O)

GUI-602 AI Mode: Show Your Turn (X) / AI

Thinking... (0)

GUI-603 Action buttons: RESTART, SAVE &

EXIT (\rightarrow Main Menu), HELP

Screen 7: Game Result

Code Description

GUI-701 Display:

- Outcome (*You Win! / W You

Lose!/ Tie!)

- Stats (Moves: X-5/O-4, Time:

2m 15s)

GUI-702 Buttons:

- S PLAY AGAIN (→ Game Board

with same settings)

- **MAIN MENU** (→ Screen 3)

Screen 8: Game History

Code Description

GUI-801 Table columns: DATE, OPPONENT,

RESULT (2/9/5)

GUI-802 Sort/filter by date, opponent

type (AI/Player), result

GUI-803 Buttons: REPLAY (\rightarrow Screen 9),

DELETE, BACK (→ Main Menu)

Screen 9: Replay Viewer

Code Description

GUI-901 Controls: ▶ PLAY (animate

moves), ∥ PAUSE, ■ STOP

GUI-902 Display move timestamps (e.g.,

"Turn 3: X at (1,1) - 00:45")