

Games Description:

Game1 : Dice Game between two users.

The player who first gets dice value '5' will win the game.

Players will get chances alternatively.

Game2 : Tic Tac Toe Game (3X3) between two users.

Player who first marks (3 cells) – row wise, column wise, diagonal wise will win the game.

Players will get chances alternatively.

Game3: Number Guessing Game.

The player need to guess the number based on instructions.

It is one player game.

Source Code:

```
#include <stdio.h>
#include<conio.h>
char square[10] = { 'o', '1', '2', '3', '4', '5', '6', '7', '8', '9' };
int checkwin();
void board();

void diceGame()
{
    int dice_target=5;
    int dice_val, i=1;
    printf("----- welcome to Dice Game of two Users-----\n");
    while(1)
    {
        if(i%2==1)
        {
            printf("Enter the dice value of user 1 : ");
```

```

scanf("%d",&dice_val);
if(dice_val == dice_target)
{
    printf("\nuser 1 won the Dice Game\n");
    break;
}
}

else
{
    printf("Enter the dice value of user 2 : ");
    scanf("%d",&dice_val);
    if(dice_val == dice_target)
    {
        printf("\nuser 2 won the Dice Game\n");
        break;
    }
}
i++;
}
}

```

```

void ticTacToe()
{

    int player = 1, i, choice;
    char mark;
    do
    {

```

```
board();

player = (player % 2) ? 1 : 2;

printf("Player %d, enter a number: ", player);
scanf("%d", &choice);

mark = (player == 1) ? 'X' : 'O';

if (choice == 1 && square[1] == '1')
    square[1] = mark;

else if (choice == 2 && square[2] == '2')
    square[2] = mark;

else if (choice == 3 && square[3] == '3')
    square[3] = mark;

else if (choice == 4 && square[4] == '4')
    square[4] = mark;

else if (choice == 5 && square[5] == '5')
    square[5] = mark;

else if (choice == 6 && square[6] == '6')
    square[6] = mark;

else if (choice == 7 && square[7] == '7')
    square[7] = mark;

else if (choice == 8 && square[8] == '8')
```

```
        square[8] = mark;

    else if (choice == 9 && square[9] == '9')
        square[9] = mark;

    else
    {
        printf("Invalid move ");

        player--;
        getch();
    }
    i = checkwin();

    player++;
}while (i == - 1);

board();

if (i == 1)
    printf("==>\aPlayer %d win ", --player);
else
    printf("==>\aGame draw");

getch();

return 0;

}
```

```
int checkwin()
{
    if (square[1] == square[2] && square[2] == square[3])
        return 1;

    else if (square[4] == square[5] && square[5] == square[6])
        return 1;

    else if (square[7] == square[8] && square[8] == square[9])
        return 1;

    else if (square[1] == square[4] && square[4] == square[7])
        return 1;

    else if (square[2] == square[5] && square[5] == square[8])
        return 1;

    else if (square[3] == square[6] && square[6] == square[9])
        return 1;

    else if (square[1] == square[5] && square[5] == square[9])
        return 1;

    else if (square[3] == square[5] && square[5] == square[7])
        return 1;

    else if (square[1] != '1' && square[2] != '2' && square[3] != '3' &&
        square[4] != '4' && square[5] != '5' && square[6] != '6' && square[7]
        != '7' && square[8] != '8' && square[9] != '9')
```

```

        return 0;
    else
        return - 1;
}

void board()
{

    printf("----- welcome to Tic Tac Toe Game of two Users -----\\n");

    printf("Player 1 (X) - Player 2 (O)\\n\\n\\n");


    printf("  |  |  \\n");
    printf(" %c | %c | %c \\n", square[1], square[2], square[3]);

    printf("____|____|____\\n");
    printf("  |  |  \\n");

    printf(" %c | %c | %c \\n", square[4], square[5], square[6]);

    printf("____|____|____\\n");
    printf("  |  |  \\n");

    printf(" %c | %c | %c \\n", square[7], square[8], square[9]);

    printf("  |  |  \\n\\n");
}

```

```
void guessNum()
{

    int i=1, target=100, num_val;
    printf("----- welcome to char guess Game of two Users-----\n");
    while(1)
    {

        printf("Enter the num value of user : ");
        scanf("%d",&num_val);

        if(num_val == target)
        {
            printf("\nYou guessed correctly in the attempt %d\n",i);

            break;
        }
        else if(num_val > target)
        {
            printf("\nguessed number is greater than actual number in the attempt %d\n",i);
        }
        else
        {
            printf("\nguessed number is lesser than actual number in the attempt %d\n",i);
        }

        i++;
    }
}
```

```
int main()
{
    int choice;

    printf("Hi, Welcome to Harish Games \n");

    printf("***** choose options to start the games *****\n");

    printf("1. Dice Game\n");
    printf("2. Tic-Tac-Toe Game\n");
    printf("3. Guess Number Game\n ");

    printf("*****\n");
    ;

    scanf("%d",&choice);

    switch(choice)
    {
        case 1 : diceGame();
            break;

        case 2 : ticTacToe();
            break;

        case 3 : guessNum();
            break;

        default : printf(" Not a valid choice \n ");
    }

    return 0;
}
```


Output screenshots:

Game 1:

```
Hi, Welcome to Harish Games
***** choose options to start the games *****
1. Dice Game
2. Tic-Tac-Toe Game
3. Guess Number Game
*****
```

```
*****
1
----- welcome to Dice Game of two Users-----
Enter the dice value of user 1 : 1
Enter the dice value of user 2 : 2
Enter the dice value of user 1 : 3
Enter the dice value of user 2 : 1
Enter the dice value of user 1 : 4
Enter the dice value of user 2 : 6
Enter the dice value of user 1 : 5

user 1 won the Dice Game

...Program finished with exit code 0
Press ENTER to exit console.
```

Game 2:

```
*****
2
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)

  |  |  |
1 | 2 | 3
  |  |  |
  |  |  |
4 | 5 | 6
  |  |  |
  |  |  |
7 | 8 | 9
  |  |  |
```

```
Player 1, enter a number: 1
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)
```

```
  |  |
X | 2 | 3
  |  |
4 | 5 | 6
  |  |
7 | 8 | 9
  |  |
```

```
Player 2, enter a number: 2
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)
```

```
  |  |
X | O | 3
  |  |
4 | 5 | 6
  |  |
7 | 8 | 9
  |  |
```

```
Player 1, enter a number: 5
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)
```

```
  |  |
X | O | 3
  |  |
4 | X | 6
  |  |
7 | 8 | 9
  |  |
```

```
Player 2, enter a number: 8
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)
```

```
  |  |
X | O | 3
  |  |
4 | X | 6
  |  |
7 | O | 9
  |  |
```

```
Player 2, enter a number: 8
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)
```

```
  |  |
X | O | 3
  |  |
4 | X | 6
  |  |
7 | O | 9
  |  |
```

```
Player 1, enter a number: 9
----- welcome to Tic Tac Toe Game of two Users -----
Player 1 (X) - Player 2 (O)
```

```
  |  |
X | O | 3
  |  |
4 | X | 6
  |  |
7 | O | X
  |  |
```

```
=>Player 1 win
```

Game 3:

```
*****
3
----- welcome to number guess Game of two Users-----
Enter the num value of user : 50

guessed number is lesser than actual number in the attempt 1
Enter the num value of user : 120

guessed number is greater than actual number in the attempt 2
Enter the num value of user : 100

You guessed correctly in the attempt 3
```