ASSIGNMENT-03

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Q) Enhance the Guesser Game Project which you have learnt in live class. Add the maximum feature you could add to it.

```java
Sol:- package assignment;
import java.util.Scanner;
class Guesser
{
    int guessNum;

    int guessNum()
    {
        Scanner scan=new Scanner(System.in);
        System.out.println("Guesser kindly guess the number between 1 to
10");
        guessNum=scan.nextInt();
        if(guessNum<1||guessNum>10) {
            System.out.println("Invalid number");
            guessNum();
        }
    return guessNum;

    }
}

class Player
{
    int guessNum;

    int guessNum(int playerNo)
    {
        Scanner scan=new Scanner(System.in);
        System.out.println("Player "+playerNo+"  kindly guess the number
between 1 to 10");
        guessNum=scan.nextInt();
        if(guessNum<1||guessNum>10) {
            System.out.println("Invalid number");
            guessNum(playerNo);
        }
        return guessNum;
    }
}

class Umpire
{
    int numFromGuesser;
    int numFromPlayer1;
    int numFromPlayer2;
    int numFromPlayer3;
```

```java
        void collectNumFromGuesser()
        {
                Guesser g=new Guesser();
                numFromGuesser=g.guessNum();
        }
        void collectNumFromPlayers(int i,int j,int k)
        {
                //Here value of i,j,k equal to 1 means that player is playing and
zero means not playing

                if(i==1&&j==1&&k==1) {
                Player p1=new Player();
                Player p2=new Player();
                Player p3=new Player();
                numFromPlayer1=p1.guessNum(1);//Here 1 is player no.
                numFromPlayer2=p2.guessNum(2);
                numFromPlayer3=p3.guessNum(3);
        }else if(i==1&&j==1&&k==0){
                Player p1=new Player();
                Player p2=new Player();
                numFromPlayer1=p1.guessNum(1);//Here 1 is player no.
                numFromPlayer2=p2.guessNum(2);
        }else if(i==1&&j=0&&k==1) {
                Player p1=new Player();
                Player p3=new Player();
                numFromPlayer1=p1.guessNum(1);
                numFromPlayer3=p3.guessNum(3);
        }

                else if(i==0&&j==1&&k==1) {
                        Player p2=new Player();
                        Player p3=new Player();
                        numFromPlayer2=p2.guessNum(2);
                        numFromPlayer3=p3.guessNum(3);
                }

        }
        void compare()
        {
                if(numFromGuesser==numFromPlayer1)
                {
                        if(numFromGuesser==numFromPlayer2 &&
numFromGuesser==numFromPlayer3)
                        {
                                System.out.println("Match tied!All players guess the
right number");

                                System.out.println("Match wii be played again");
                                collectNumFromGuesser();
                                collectNumFromPlayers(1,1,1);
                                compare();
                        }
                        else if(numFromGuesser==numFromPlayer2 )
                        {
                                System.out.println("Match tied between Player 1 &
Player2");

                                System.out.println("Match wii be played again between
player 1 and player 2");
                                collectNumFromGuesser();
                                collectNumFromPlayers(1,1,0);
```

```java
                                compareOneTwo();
                        }
                        else if(numFromGuesser==numFromPlayer3)
                        {
                                System.out.println("Match tied between Player 1 &
Player3");
                                System.out.println("Match wii be played again between
player 1 and player 3");
                                collectNumFromGuesser();
                                collectNumFromPlayers(1,0,1);
                                compareOneThree();

                        }
                        else
                        {
                        System.out.println("Player 1 won the game");
                        }
                }
                else if(numFromGuesser==numFromPlayer2)
                {
                        if(numFromGuesser==numFromPlayer3)
                        {
                                System.out.println("Match tied between Player 2 &
Player3");
                                System.out.println("Match wii be played again between
player 2 and player 3");
                                collectNumFromGuesser();
                                collectNumFromPlayers(0,1,1);
                                compareTwoThree();

                        }
                        else
                        {
                        System.out.println("Player 2 won the game");
                        }
                }
                else if(numFromGuesser==numFromPlayer3)
                {
                        System.out.println("Player 3 won the game");
                }
                else
                {
                        System.out.println("Game lost Try Again!");
                        collectNumFromPlayers(1,1,1);
                        compare();
                }

        }
        void compareOneTwo() {
                if(numFromGuesser==numFromPlayer1&&numFromGuesser==numFromPlayer2 )
{
                        System.out.println("Match tied between Player 1 & Player2");
                        System.out.println("Match wii be played again between player 1
and player 2");
                        collectNumFromGuesser();
                        collectNumFromPlayers(1,1,0);
                        compareOneTwo();
        }else if(numFromGuesser==numFromPlayer1) {
                System.out.println("Player 1 won the game");
```

```java
        }else if(numFromGuesser==numFromPlayer2){
            System.out.println("player 2 won the game");
        }else {
            System.out.println("");
            System.out.println("Game lost Try Again!");
            collectNumFromPlayers(1,1,0);
            compareOneTwo();
        }
    }

    void compareOneThree() {
        if(numFromGuesser==numFromPlayer1&&numFromGuesser==numFromPlayer3 )
{
            System.out.println("Match tied between Player 1 & Player3");
            System.out.println("Match wii be played again between player 1
and player 3");
            collectNumFromGuesser();
            collectNumFromPlayers(1,0,1);
            compareOneThree();
        }else if(numFromGuesser==numFromPlayer1) {
            System.out.println("Player 1 won the game");
        }else if(numFromGuesser==numFromPlayer3){
            System.out.println("player 3 won the game");
        }else {
            System.out.println("");
            System.out.println("Game lost Try Again!");
            collectNumFromPlayers(1,0,1);
            compareOneThree();
        }
    }

    void compareTwoThree() {
        if(numFromGuesser==numFromPlayer2&&numFromGuesser==numFromPlayer3 )
{
            System.out.println("Match tied between Player 2 & Player3");
            System.out.println("Match wii be played again between player 2
and player 3");
            collectNumFromGuesser();
            collectNumFromPlayers(0,1,1);
            compareTwoThree();
        }else if(numFromGuesser==numFromPlayer2) {
            System.out.println("Player 2 won the game");
        }else if(numFromGuesser==numFromPlayer3){
            System.out.println("player 3 won the game");
        }else {
            System.out.println("");
            System.out.println("Game lost Try Again!");
            collectNumFromPlayers(0,1,1);
            compareTwoThree();
        }
    }
}
public class GuesserGame {

    public static void main(String[] args) {


        Umpire u=new Umpire();
        u.collectNumFromGuesser();
        u.collectNumFromPlayers(1,1,1);
        u.compare();
```

```
        }

}
```

Output:- Guesser kindly guess the number between 1 to 10
5
Player 1 kindly guess the number between 1 to 10
6
Player 2 kindly guess the number between 1 to 10
7
Player 3 kindly guess the number between 1 to 10
7
Game lost Try Again!
Player 1 kindly guess the number between 1 to 10
5
Player 2 kindly guess the number between 1 to 10
6
Player 3 kindly guess the number between 1 to 10
5
Match tied between Player 1 & Player3
Match wii be played again between player 1 and player 3
Guesser kindly guess the number between 1 to 10
11
Invalid number
Guesser kindly guess the number between 1 to 10
3
Player 1 kindly guess the number between 1 to 10
4
Player 3 kindly guess the number between 1 to 10
55
Invalid number
Player 3 kindly guess the number between 1 to 10
4

Game lost Try Again!
Player 1 kindly guess the number between 1 to 10
3
Player 3 kindly guess the number between 1 to 10
4
Player 1 won the game