PRACTISE PROBLEMS WEEK 2

① import java.util.Scanner;
class Player
{
int id, i, avg1, avg;
String name;
int scores[] = new scores;

Player()
{
name = "Chayan";
id = "1234";
for (int i=0; i<=4; i++)
{
scores[i] = 70;
}
}

Player(int score[], int iid, String namee)
{
this.scores = score;
name = namee;
id = iid;
}

void calculate()
{
for (i=0; i<=4; i++)
{
int avg = avg + scores[i];
}
avg1 = avg/5; return avg1;
}

```
void display()
    {
        System.out.println("Name:" + name +
                           "Id:" + id);
        System.out.println("Avg score" + avg);
    }
}

public class Players
{
    public static void main(String args[])
    {
        // Player p1 = new Player();
        // Player p2 = new P
        int scores[] = {80, 45, 60};
        Player p2 = new Player(scores, 2728, "Sanjay");
        if(p1.calculate() > p2.calculate()){
            p1.display(); }
        else {
            p2.display(); }
    }
}
```

② import java.util.Scanner;
class Book
{
private int id;
String title;
int nop;
int year;
String auth;
String pub;
double p;

void getdetails()
{
Scanner sc = new Scanner(System.in);
id = s.nextInt();
title = s.next();
nop = s.nextInt();
year = s.nextInt();
auth = s.next();
p = s.nextDouble();
}

void printdetails()
{
System.out.println(id);
System.out.println(title);
System.out.println(nop);
System.out.println(year);
System.out.println(auth);
System.out.println(pub);
System.out.println(p);
}

```
double price()
    return p;

void displaybook title()
    System.out.println(title);

int year()
    return year;

int pages()
    return nop;

String author()
    return auth;
}

class bookmain
{
    int c=0;
    Book b1=new Book();
    Book B2=new Book();
    Book B3=new Book();
    b1.getdetails();
    b2.getdetails();
    b3.getdetails();
    System.out.println("DETAILS OF BOOK 1");
    b1.printdetails();
    System.out.println("DETAILS OF BOOK 2");
    b2.printdetails();
    System.out.println("details OF BOOK 3");
    b3.printdetails();
```

```
System.out.println(" MOST EXPENSIVE BOOK's DETAILS : ");
if(b1.price()>=b2.price() && b1.price()>=b3.price())
  {
    System.out.println(" EXPENSIVE BOOK ");
    b1.displaybooktitle();
  }
else if(b2.price()>b3.price() && b2.price()>b1.price())
  {
    System b2.displaybooktitle();
  }
else
  {
    b3.displaybooktitle();
  }

if(b1.year()==2020 || b2.year()==2020 || b3.year==
                2020)
    c++;

System.out.println(" BOOKS PUBLISHED IN 2020"+c);
System.out.println(" BOOK WITH LEAST NO OF PAGES");
if(b1.pages()<=b2.pages() && b1.pages()<=b3.
   pages()) { b1.printdetails();
else if(b2.pages()<b3.pages() && b2.pages()<b1.pages())
  {
    b2.printdetails();
  }
else
  {
    b3.printdetails();
  }
}
```

```
System.out.println("Enter Author's name");
Scanner sl = new Scanner(System.in);
String auth1 = sl.next();
if(auth1.compareToIgnoreCase(b1.author()) == 0)
        b1.printdetails();
else if(auth1.compareToIgnoreCase(b2.author()) ==
        b2.printdetails();
else
        b3.printdetails();
}
}
```

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```
import java.util.Scanner;
class Player
{
    int id,i,avg1,avg=0;
    String name;
    int scores [] = new int[5];

    Player()
    {
        name ="Chayan";
        id = 1234;
        for(i=0;i<=4;i++)
        {
            scores[i]= 70;
        }
    }

    Player( int score[], int iid, String namee)
    {
        this.scores= score;
        name= namee;
        id = iid;
    }

    int calculate()
    {
        for(i=0;i<=scores.length;i++)
        {
            avg=avg+scores[i];
        }
      avg1 =avg/5;
      return avg1;
```

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```
            avg=avg+scores[i];
        }
      avg1 =avg/5;
      return avg1;
    }

    void display()
    {
        System.out.println("NAME : " + name + "ID: " + id);
        System.out.println("avg score " + avg1);
    }
}

public class Players
{
    public static void main( String args [])
    {
        Player p1= new Player();
        int scores[]= {50,45,68};
        Player p2= new Player(scores, 3456, "Aashay");

        if(p1.calculate() > p2.calculate())
        {
            p1.display();
        }
        else
        {
            p2.display();
        }
    }
}
```

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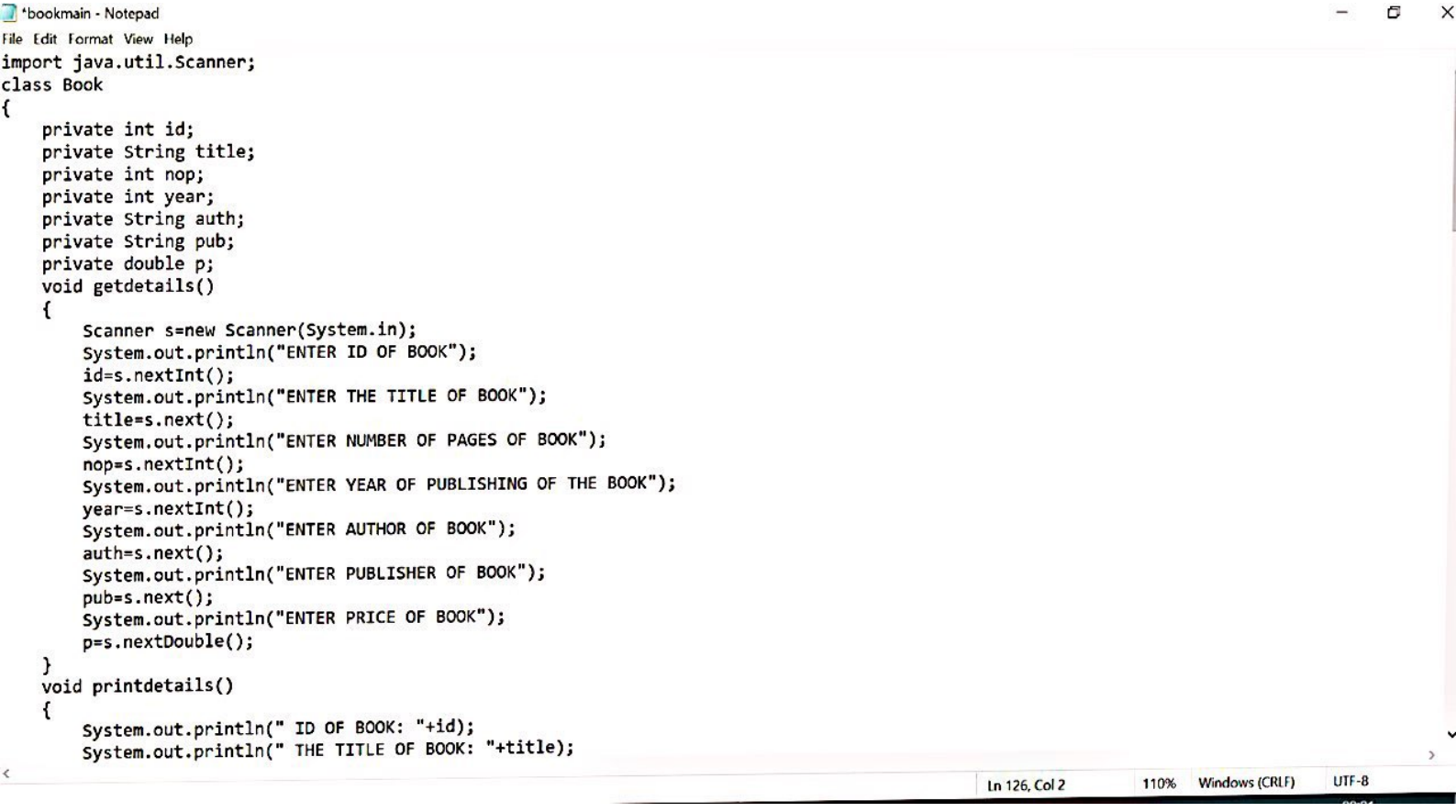
```
1 error

G:\bin\Programs>javac Players.java

G:\bin\Programs>java Players
Exception in thread "main" java.lang.ArrayIndexOutOfBoundsException: 3
        at Player.calculate(Players.java:29)
        at Players.main(Players.java:50)

G:\bin\Programs>javac Players.java

G:\bin\Programs>java Players
NAME : ChayanID: 1234
avg score 70

G:\bin\Programs>
```

```
D:\coding files\OOJ Lab>javac p4-2.java

D:\coding files\OOJ Lab>java bookmain
ENTER ID OF BOOK
1
ENTER THE TITLE OF BOOK
hsr
ENTER NUMBER OF PAGES OF BOOK
789
ENTER YEAR OF PUBLISHING OF THE BOOK
2019
ENTER AUTHOR OF BOOK
tt
ENTER PUBLISHER OF BOOK
ty
ENTER PRICE OF BOOK
678
ENTER ID OF BOOK
2
ENTER THE TITLE OF BOOK
jhk
ENTER NUMBER OF PAGES OF BOOK
32
ENTER YEAR OF PUBLISHING OF THE BOOK
2020
ENTER AUTHOR OF BOOK
tim
ENTER PUBLISHER OF BOOK
kit
ENTER PRICE OF BOOK
789
ENTER ID OF BOOK
3
ENTER THE TITLE OF BOOK
ddty
ENTER NUMBER OF PAGES OF BOOK
567
ENTER YEAR OF PUBLISHING OF THE BOOK
2020
ENTER AUTHOR OF BOOK
jack
ENTER PUBLISHER OF BOOK
```

```
2020
ENTER AUTHOR OF BOOK
jack
ENTER PUBLISHER OF BOOK
jhonas
ENTER PRICE OF BOOK
1090
***DETAILS OF THE BOOK1***
 ID OF BOOK: 1
 THE TITLE OF BOOK: hsr
 NUMBER OF PAGES OF BOOK: 789
 YEAR OF PUBLISHING OF THE BOOK: 2019
 AUTHOR OF BOOK: tt
 PUBLISHER OF BOOK: ty
 PRICE OF BOOK: 678.0

***DETAILS OF THE BOOK2***
 ID OF BOOK: 2
 THE TITLE OF BOOK: jhk
 NUMBER OF PAGES OF BOOK: 32
 YEAR OF PUBLISHING OF THE BOOK: 2020
 AUTHOR OF BOOK: tim
 PUBLISHER OF BOOK: kit
 PRICE OF BOOK: 789.0

***DETAILS OF THE BOOK3***
 ID OF BOOK: 3
 THE TITLE OF BOOK: ddty
 NUMBER OF PAGES OF BOOK: 567
 YEAR OF PUBLISHING OF THE BOOK: 2020
 AUTHOR OF BOOK: jack
 PUBLISHER OF BOOK: jhonas
 PRICE OF BOOK: 1090.0
THE MOST EXPENSIVE BOOK IS WITH TITLE:
ddty
THE NUMBER OF BOOKS PUBLISHED IN THE YEAR 2020 = 2
THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 1
 ID OF BOOK: 1
 THE TITLE OF BOOK: hsr
 NUMBER OF PAGES OF BOOK: 789
 YEAR OF PUBLISHING OF THE BOOK: 2019
 AUTHOR OF BOOK: tt
```

```
***DETAILS OF THE BOOK1***
 ID OF BOOK: 1
 THE TITLE OF BOOK: hsr
 NUMBER OF PAGES OF BOOK: 789
 YEAR OF PUBLISHING OF THE BOOK: 2019
 AUTHOR OF BOOK: tt
 PUBLISHER OF BOOK: ty
 PRICE OF BOOK: 678.0

***DETAILS OF THE BOOK2***
 ID OF BOOK: 2
 THE TITLE OF BOOK: jhk
 NUMBER OF PAGES OF BOOK: 32
 YEAR OF PUBLISHING OF THE BOOK: 2020
 AUTHOR OF BOOK: tim
 PUBLISHER OF BOOK: kit
 PRICE OF BOOK: 789.0

***DETAILS OF THE BOOK3***
 ID OF BOOK: 3
 THE TITLE OF BOOK: ddty
 NUMBER OF PAGES OF BOOK: 567
 YEAR OF PUBLISHING OF THE BOOK: 2020
 AUTHOR OF BOOK: jack
 PUBLISHER OF BOOK: jhonas
 PRICE OF BOOK: 1090.0
THE MOST EXPENSIVE BOOK IS WITH TITLE:
ddty
THE NUMBER OF BOOKS PUBLISHED IN THE YEAR 2020 = 2
THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 1
 ID OF BOOK: 1
 THE TITLE OF BOOK: hsr
 NUMBER OF PAGES OF BOOK: 789
 YEAR OF PUBLISHING OF THE BOOK: 2019
 AUTHOR OF BOOK: tt
 PUBLISHER OF BOOK: ty
 PRICE OF BOOK: 678.0
ENTER THE AUTHOR NAME WHOSE BOOK DETAILS NEED TO BE DISPLAYED
```



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```
        System.out.println(" AUTHOR OF BOOK: "+auth);
        System.out.println(" PUBLISHER OF BOOK: "+pub);
        System.out.println(" PRICE OF BOOK: "+p);
    }
    double price()
    {
        return p;
    }
    void displaybooktitle()
    {
        System.out.println(title);
    }
    int year()
    {
        return year;
    }
    int pages()
    {
        return nop;
    }
    String author()
{
   return auth;
}
}
class bookmain
{
    public static void main(String args[])
    {
        int c=0;
        Book b1=new Book();
        Book b2=new Book();
```

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```
        b3.displaybooktitle();
        }
        if(b1.year()==2020)
        c++;
        if(b2.year()==2020)
        c++;
        if(b3.year()==2020)
        c++;
        System.out.println("THE NUMBER OF BOOKS PUBLISHED IN THE YEAR 2020 = "+c);
        if(b1.pages()<=b2.price() && b1.price()<=b3.price())
       {
        System.out.println("THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 1 ");
        b1.printdetails();
        }
        else if(b2.pages()<=b1.pages() && b2.pages()<=b3.pages())
        {
        System.out.println("THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 2 ");
        b2.printdetails();
        }
        else
        {
            System.out.println("THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 3 ");
            b3.printdetails();
        }
    System.out.println("ENTER THE AUTHOR NAME WHOSE BOOK DETAILS NEED TO BE DISPLAYED");
    Scanner s1=new Scanner(System.in);
    String auth1=s1.next();
    if(auth1.compareToIgnoreCase(b1.author())==0)
    b1.printdetails();
   else if(auth1.compareToIgnoreCase(b2.author())==0)
    b2.printdetails();
   else if(auth1.compareToIgnoreCase(b3.author())==0)
```

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```
        if(b3.year()==2020)
        c++;
        System.out.println("THE NUMBER OF BOOKS PUBLISHED IN THE YEAR 2020 = "+c);
        if(b1.pages()<=b2.price() && b1.price()<=b3.price())
       {
        System.out.println("THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 1 ");
        b1.printdetails();
        }
        else if(b2.pages()<=b1.pages() && b2.pages()<=b3.pages())
        {
        System.out.println("THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 2 ");
        b2.printdetails();
        }
        else
        {
            System.out.println("THE  BOOK  WITH LEAST NUMBER OF PAGES IS BOOK 3 ");
            b3.printdetails();
        }
    System.out.println("ENTER THE AUTHOR NAME WHOSE BOOK DETAILS NEED TO BE DISPLAYED");
    Scanner s1=new Scanner(System.in);
    String auth1=s1.next();
    if(auth1.compareToIgnoreCase(b1.author())==0)
    b1.printdetails();
   else if(auth1.compareToIgnoreCase(b2.author())==0)
    b2.printdetails();
   else if(auth1.compareToIgnoreCase(b3.author())==0)
    b3.printdetails();
    else
      System.out.println("THE GIVEN AUTHOR'S BOOK IS NOT FOUND");
}
}
```

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