1)

```
import java.util.*;
class Player{
    String name;
    int id, scores[], matches;
    Player(int x[],int m, int i, String n){
        scores=x;
        matches=m;
        name=n;
        id=i;
    }
    float avg(){
        int s=0;
        for(int i=0;i<scores.length;i++)
        s=s+scores[i];
        return ((float)s)/scores.length;
    }
    void display(float f){
        System.out.println("Name\tID\tAverage Score");
        System.out.println(name+"\t"+id+"\t"+f);
    }
    public static void main(String args[]){
        Scanner in = new Scanner(System.in);
        Player ob[]=new Player[2];
        String nm; int ID,M;
        for (int i=0;i<2;i++){
            System.out.println("Enter name of player");
            nm=in.nextLine();
            System.out.println("Enter ID");
            ID=in.nextInt();
            System.out.println("Enter number of matches");
            M=in.nextInt();
            int z[]=new int[M];
            for(int j=0;j<M;j++){
                System.out.println("Enter score in match"+(j+1));
                z[j]=in.nextInt();
            }
            ob[i]=new Player(z,M,ID,nm);
            in.nextLine();
        }
        System.out.println("Player stats with higher average score:");
        int t=1;
        if (ob[0].avg()>ob[1].avg())
        t=0;
        ob[t].display(ob[t].avg());
    }
}
```

Output:

```
PROBLEMS 6   OUTPUT   DEBUG CONSOLE   TERMINAL

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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS D:\Prg data> cd "d:\Prg data\Java\OOJ Lab\Sample\" ; if ($?)
Enter name of player
Mukesh
Enter ID
1234
Enter number of matches
5
Enter score in match1
56
Enter score in match2
70
Enter score in match3
100
Enter score in match4
32
Enter score in match5
10
Enter name of player
Sonali
Enter ID
6731
Enter number of matches
5
Enter score in match1
90
Enter score in match2
11
Enter score in match3
57
Enter score in match4
32
Enter score in match5
89
Player stats with higher average score:
Name    ID      Average Score
Sonali  6731    55.8
```

2)

```
import java.util.*;

public class Book {
    int bookid, no_of_pages, year_of_pub;
    String booktitle, author, publisher;
    float price;

    void input(){
        Scanner in = new Scanner(System.in);
        System.out.println("Enter Book ID");
        bookid=in.nextInt();
        in.nextLine();
        System.out.println("Enter Book name");
        booktitle=in.nextLine();
        System.out.println("Enter Author name");
        author=in.nextLine();
        System.out.println("Enter number of pages");
        no_of_pages=in.nextInt();
        System.out.println("Enter price");
        price=in.nextFloat();
        in.nextLine();
        System.out.println("Enter publisher name");
        publisher=in.nextLine();
        System.out.println("Enter year of publication");
        year_of_pub=in.nextInt();
        in.nextLine();
    }

    void display(){
        System.out.println("Book ID\tName\tAuthor\tPages\tPrice\tPublisher\tYear of publication");
        System.out.println(bookid+"\t"+booktitle+"\t"+author+"\t"+no_of_pages+"\t"+price+"\t"+publishe
r+"\t"+year_of_pub);
        System.out.println();
    }

    static void info(Book x[]){
        Scanner in = new Scanner(System.in);
        System.out.println("Enter Author of book to be searched");
        String s=in.nextLine();
        int f=0;
        for (int i=0;i<x.length;i++)
        if(x[i].author.equalsIgnoreCase(s)){
            f=1;
            x[i].display();
        }
        if(f==0)
        System.out.println("No books found");
    }

    static void most_expensive(Book x[]){
        float max=x[0].price;
        String tima=x[0].booktitle;
```

```
        for(int i=0;i<x.length;i++){
        if(x[i].price>max){
        max=x[i].price;
        tima=x[i].booktitle;
    }
    }
    System.out.println("Most expensive book: "+tima);
    }

    static void count(Book x[]){
        int count=0;
        for(int i=0;i<x.length;i++)
            if(x[i].year_of_pub==2020)
            ++count;
        System.out.println("Number of books published in 2020: "+count);
    }

    static void leastpg(Book x[]){
        int t=0;
        int least=x[0].no_of_pages;
        for (int i=0;i<x.length;i++)
        if(x[i].no_of_pages<least){
            least=x[i].no_of_pages;
            t=i;
    }
    System.out.println("Book with minimum pages:");
    x[t].display();
    }
    public static void main(String args[]){
        Book obj[]=new Book[3];
        for(int i=0;i<3;i++){
            obj[i]=new Book();
            obj[i].input();
        }
        info(obj);
        most_expensive(obj);
        System.out.println();
        count(obj);
        System.out.println();
        leastpg(obj);
    }
}
```

Output:

```
PROBLEMS 7    OUTPUT    DEBUG CONSOLE    TERMINAL

Enter price
250
Enter publisher name
Penguin
Enter year of publication
2020
Enter Book ID
6122
Enter Book name
Up Above
Enter Author name
Richard Thimble
Enter number of pages
89
Enter price
150
Enter publisher name
Kiwi's
Enter year of publication
2000
Enter Book ID
4451
Enter Book name
Sherlocked
Enter Author name
Arthur Conan
Enter number of pages
500
Enter price
670
Enter publisher name
Nexus
Enter year of publication
2020
Enter Author of book to be searched
JK Rowling
Book ID Name    Author  Pages   Price   Publisher       Year of publication
7914    Harry Potter    JK Rowling      341     250.0   Penguin 2020

Most expensive book: Sherlocked

Number of books published in 2020: 2

Book with minimum pages:
Book ID Name    Author  Pages   Price   Publisher       Year of publication
6122    Up Above        Richard Thimble 89      150.0   Kiwi's  2000
```