

LetsUpgrade Java Essentials Assignment - 3

Questions 1:

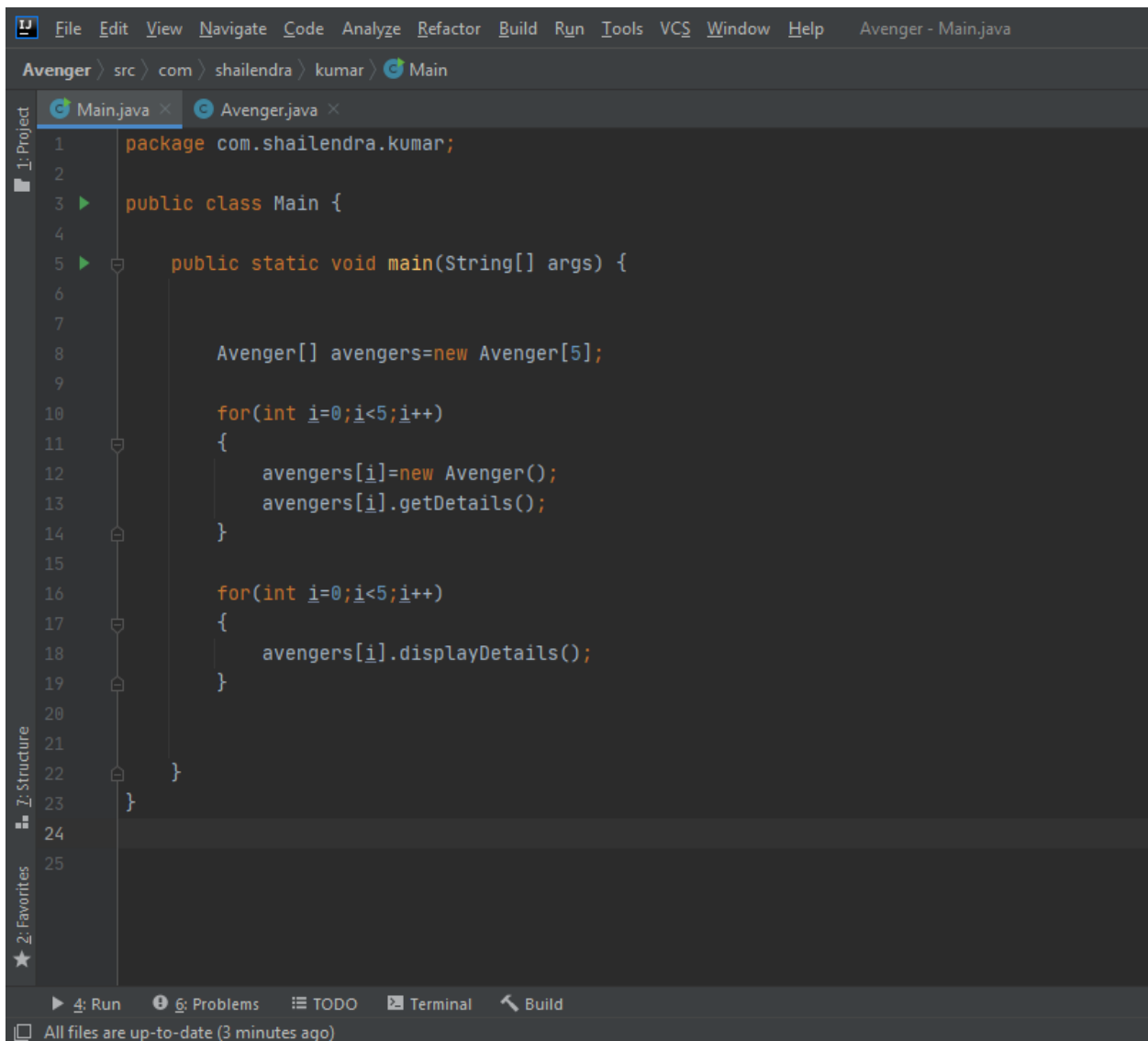
create a class avenger with

properties (name, age, power, weapon, planet) and with

functions - getDetails() and displayDetails().

create 5 objects as an array in the main method and call.

Answer:

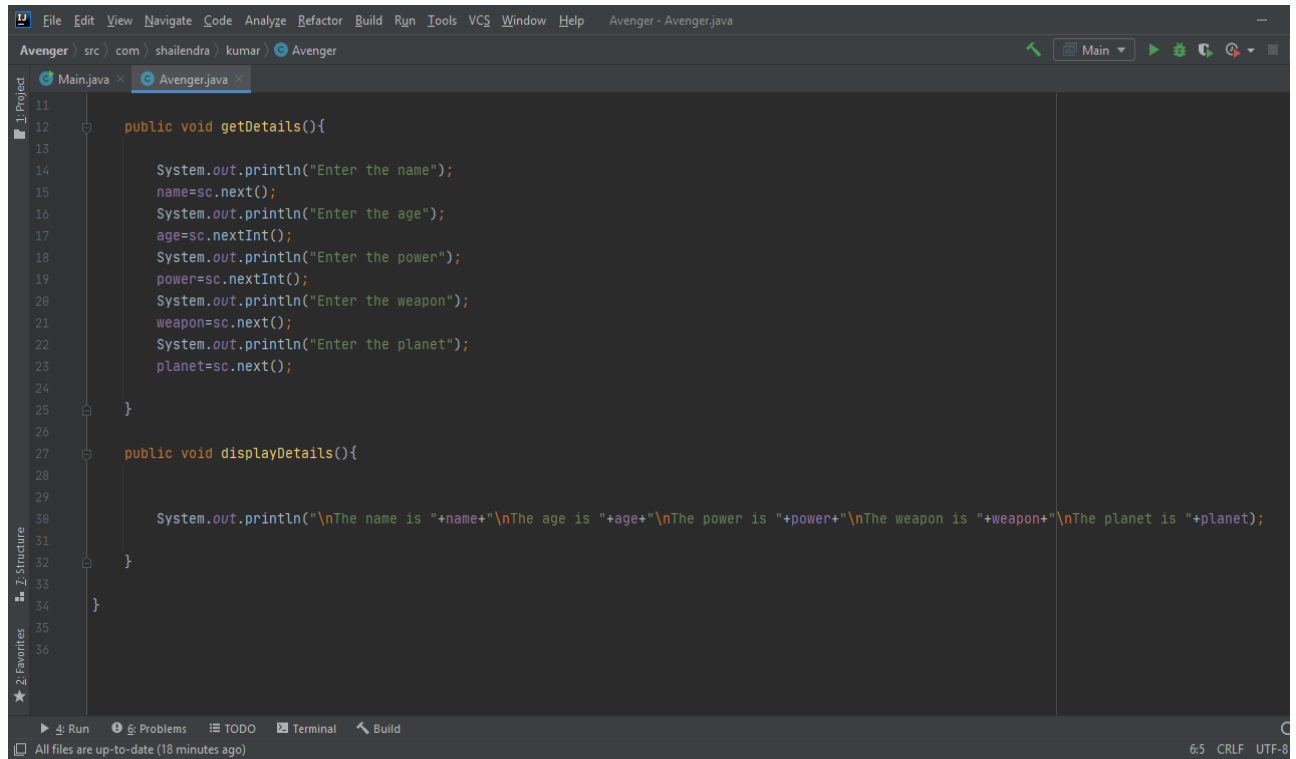


```
Avenger > src > com > shailendra > kumar > Main
Main.java x  Avenger.java x
1  package com.shailendra.kumar;
2
3  public class Main {
4
5      public static void main(String[] args) {
6
7          Avenger[] avengers=new Avenger[5];
8
9          for(int i=0;i<5;i++)
10         {
11             avengers[i]=new Avenger();
12             avengers[i].getDetails();
13         }
14
15         for(int i=0;i<5;i++)
16         {
17             avengers[i].displayDetails();
18         }
19     }
20 }
21
22
23
24
25
Run Problems TODO Terminal Build
All files are up-to-date (3 minutes ago)
```

```
Avenger > src > com > shailendra > kumar > Avenger
Main.java x Avenger.java x
1 package com.shailendra.kumar;
2
3 import java.util.Scanner;
4
5 public class Avenger {
6
7
8     Scanner sc=new Scanner(System.in);
9     public String name, weapon, planet;
10    public int age, power;
11
12    public void getDetails(){
13
14        System.out.println("Enter the name");
15        name=sc.next();
16        System.out.println("Enter the age");
17        age=sc.nextInt();
18        System.out.println("Enter the power");
19        power=sc.nextInt();
20        System.out.println("Enter the weapon");
21        weapon=sc.next();
22        System.out.println("Enter the planet");
23        planet=sc.next();
24
25    }
26
27    public void displayDetails(){
28
29
```

4: Run Problems TODO Terminal Build

All files are up-to-date (17 minutes ago)



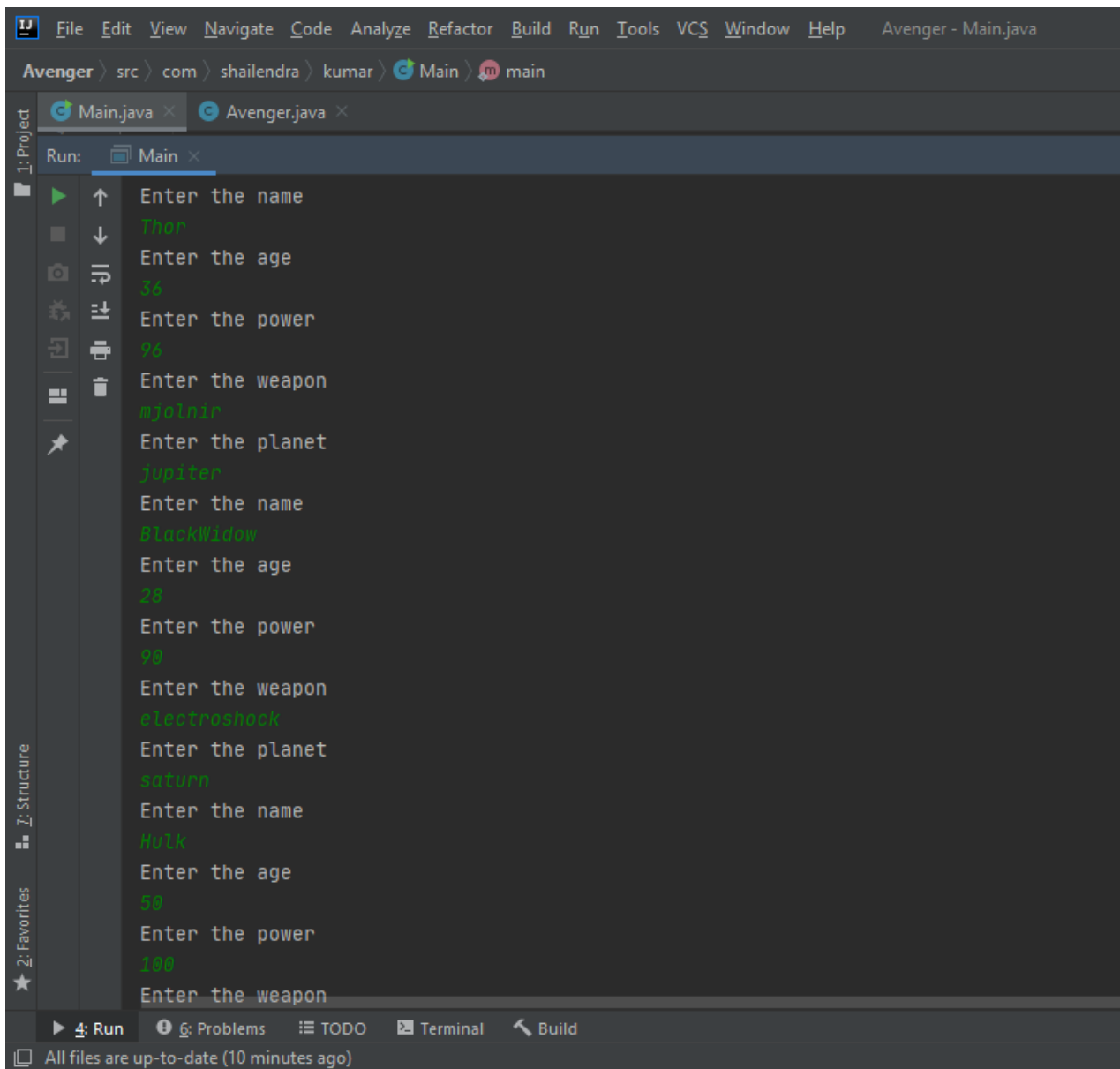
The screenshot shows an IDE window titled "Avenger - Avenger.java". The menu bar includes File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, and Help. The breadcrumb navigation shows the path: Avenger > src > com > shallendra > kumar > Avenger. The left sidebar contains a Project view with a tree structure showing "1. Project" and "2. Structure". The main editor area displays the code for "Avenger.java". The code defines two methods: `getDetails()` and `displayDetails()`. The `getDetails()` method prompts the user to enter the name, age, power, weapon, and planet, storing each input in a variable. The `displayDetails()` method prints out all the collected details in a single line, separated by newlines. The status bar at the bottom indicates "All files are up-to-date (18 minutes ago)" and shows the time "6:5" and encoding "CRLF UTF-8".

```
11
12 public void getDetails(){
13
14     System.out.println("Enter the name");
15     name=sc.next();
16     System.out.println("Enter the age");
17     age=sc.nextInt();
18     System.out.println("Enter the power");
19     power=sc.nextInt();
20     System.out.println("Enter the weapon");
21     weapon=sc.next();
22     System.out.println("Enter the planet");
23     planet=sc.next();
24
25 }
26
27 public void displayDetails(){
28
29
30     System.out.println("\nThe name is "+name+"\nThe age is "+age+"\nThe power is "+power+"\nThe weapon is "+weapon+"\nThe planet is "+planet);
31
32 }
33
34 }
35
36
```

Run Problems TODO Terminal Build

All files are up-to-date (18 minutes ago) 6:5 CRLF UTF-8

```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help Avenger - Main.java
Avenger > src > com > shailendra > kumar > Main > main
Main.java x Avenger.java x
Run: Main x
D:\Java\jdk-11.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 20
Enter the name
Ironman
Enter the age
39
Enter the power
99
Enter the weapon
unibeam
Enter the planet
mars
Enter the name
CaptainAmerica
Enter the age
34
Enter the power
98
Enter the weapon
shields
Enter the planet
uranus
Enter the name
Thor
Enter the age
36
Enter the power
96
4: Run 6: Problems TODO Terminal Build
All files are up-to-date (10 minutes ago)
```



```
Avenger > src > com > shailendra > kumar > Main > main
Main.java x Avenger.java x
Run: Main x
Enter the name
Thor
Enter the age
36
Enter the power
96
Enter the weapon
mjolnir
Enter the planet
jupiter
Enter the name
BlackWidow
Enter the age
28
Enter the power
90
Enter the weapon
electroshock
Enter the planet
saturn
Enter the name
Hulk
Enter the age
50
Enter the power
100
Enter the weapon
```

4 Run Problems TODO Terminal Build

All files are up-to-date (10 minutes ago)

```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help Avenger - Main.java
Avenger > src > com > shailendra > kumar > Main > main
Main.java x Avenger.java x
Run: Main x
1: Project
2: Structure
3: Favorites
Enter the name
Hulk
Enter the age
50
Enter the power
100
Enter the weapon
hulkbuster
Enter the planet
venus

The name is Ironman
The age is 39
The power is 99
The weapon is unibeam
The planet is mars

The name is CaptainAmerica
The age is 34
The power is 98
The weapon is shields
The planet is uranus

The name is Thor
The age is 36
The power is 96
The weapon is mjolnir
4: Run 6: Problems TODO Terminal Build
All files are up-to-date (10 minutes ago)
```

```
Avenger > src > com > shailendra > kumar > Main > main
Main.java x Avenger.java x
Run: Main x
The name is CaptainAmerica
The age is 34
The power is 98
The weapon is shields
The planet is uranus

The name is Thor
The age is 36
The power is 96
The weapon is mjolnir
The planet is jupiter

The name is BlackWidow
The age is 28
The power is 90
The weapon is electroshock
The planet is saturn

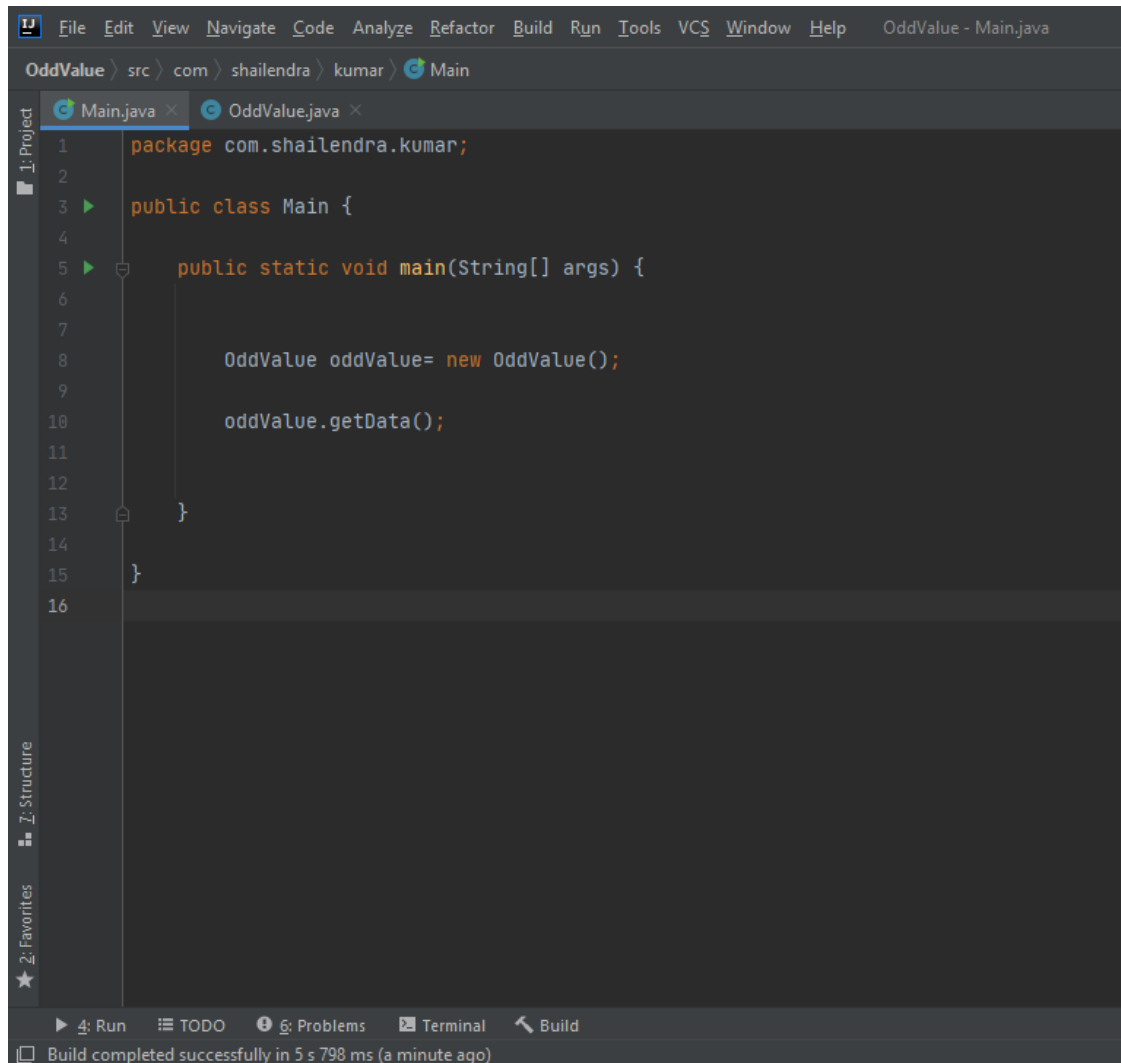
The name is Hulk
The age is 50
The power is 100
The weapon is hulkbuster
The planet is venus

Process finished with exit code 0
4: Run 6: Problems TODO Terminal Build
All files are up-to-date (11 minutes ago)
```

Questions 2:

Create an int array with 5 values and print only odd values.

Answer:



The screenshot shows an IDE with two tabs: Main.java and OddValue.java. The Main.java tab is active, displaying the following code:

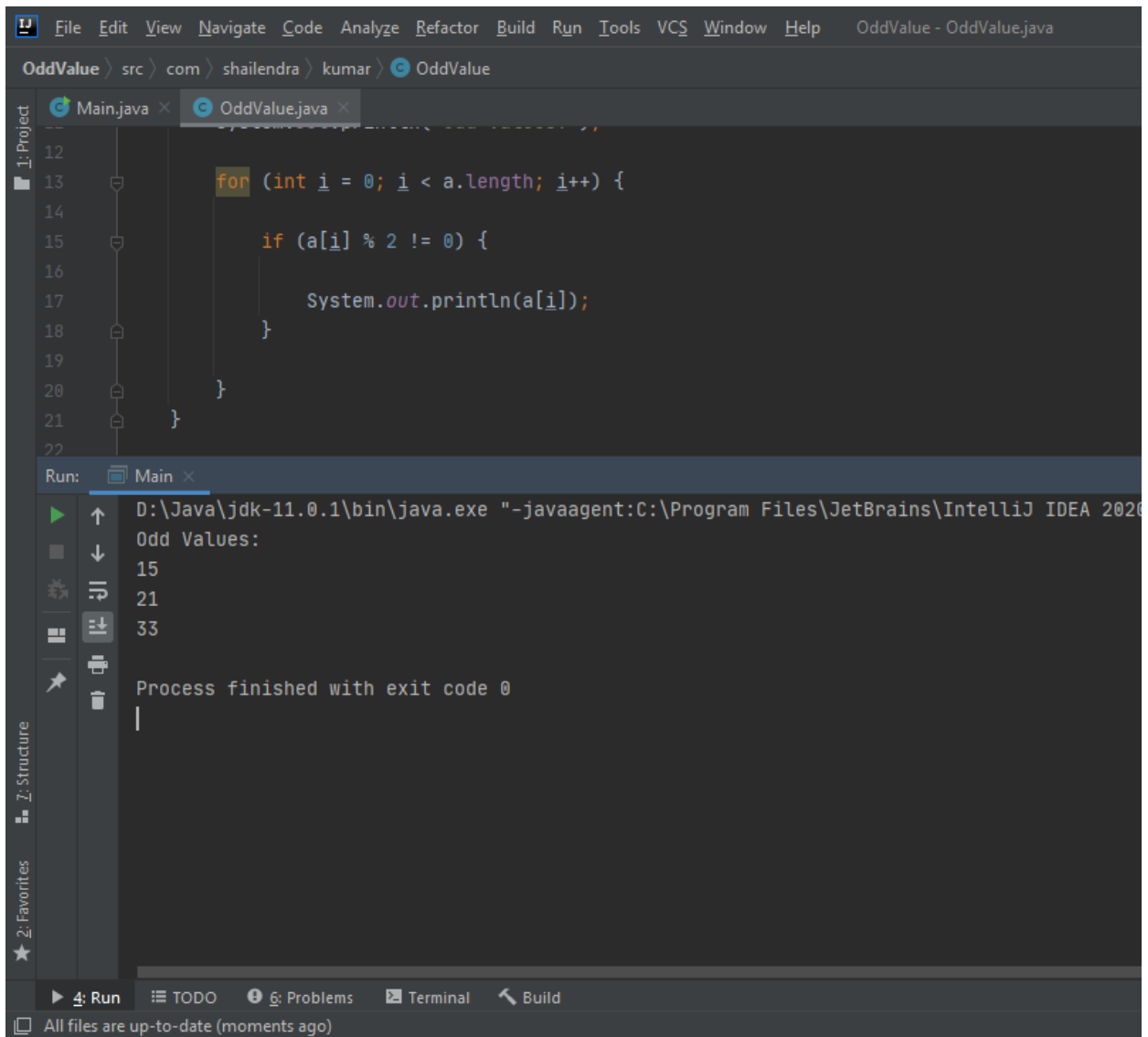
```
1 package com.shailendra.kumar;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7
8         OddValue oddValue= new OddValue();
9
10        oddValue.getData();
11
12    }
13
14 }
15
16
```

The OddValue.java tab is also visible, showing the package declaration and class definition. The IDE interface includes a menu bar at the top with options like File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, and Help. The bottom status bar indicates that the build completed successfully in 5 s 798 ms (a minute ago).

The screenshot shows an IDE window titled "OddValue - OddValue.java". The menu bar includes File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, and Help. The breadcrumb navigation shows the path: OddValue > src > com > shailendra > kumar > OddValue. The editor has two tabs: Main.java and OddValue.java. The code in OddValue.java is as follows:

```
1 package com.shailendra.kumar;
2
3 public class OddValue {
4
5
6     public void getData() {
7
8
9         int[] a = {15, 21, 8, 33, 20};
10
11         System.out.println("Odd Values:");
12
13         for (int i = 0; i < a.length; i++) {
14
15             if (a[i] % 2 != 0) {
16
17                 System.out.println(a[i]);
18             }
19         }
20     }
21 }
22
23
24
```

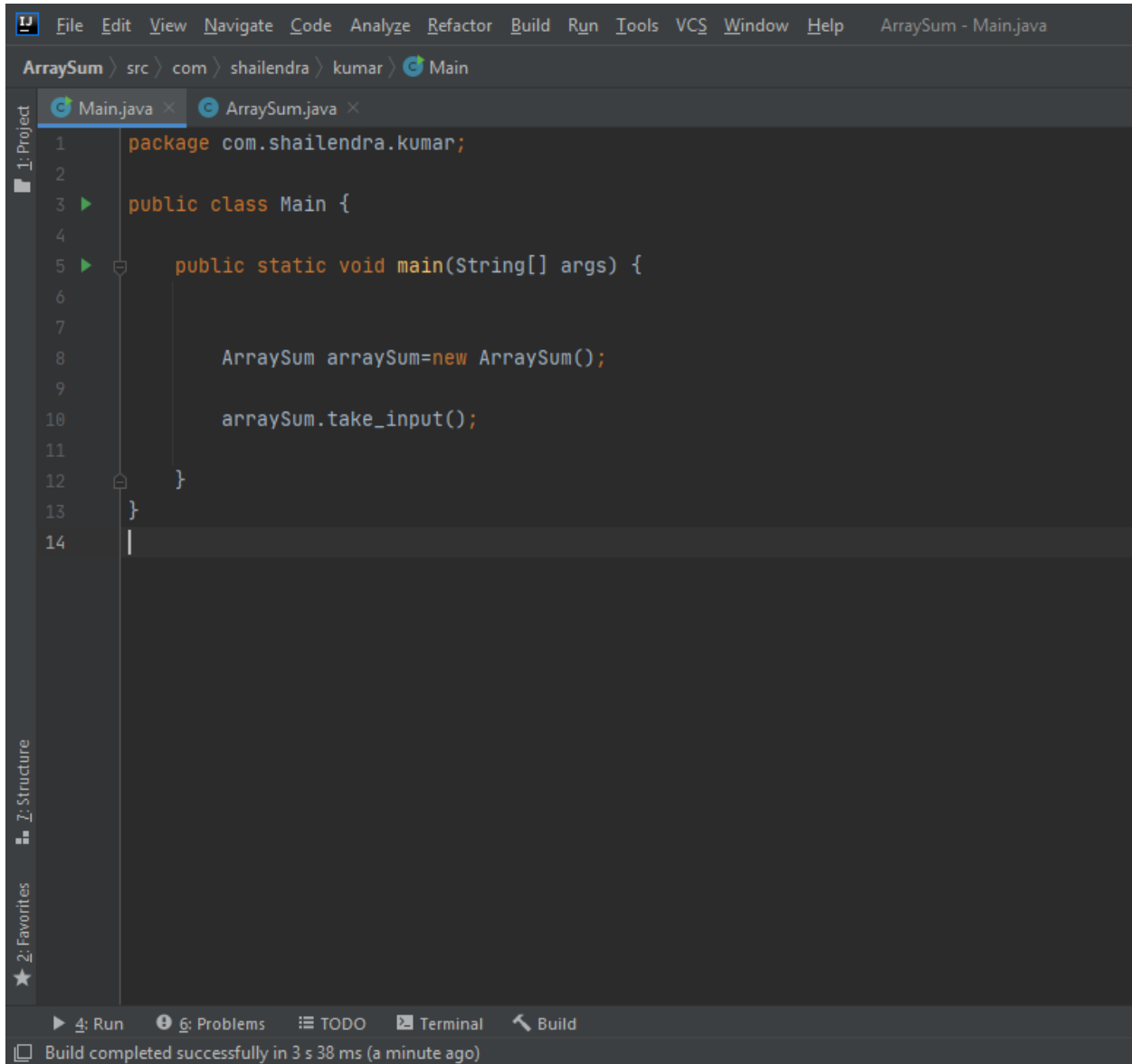
The left sidebar shows the Project, Structure, and Favorites views. The bottom status bar indicates "Build completed successfully in 5 s 798 ms (a minute ago)".



Questions 3:

Create an int array of size 5, take all the values from the user, add all the values and print the sum.

Answer:



The screenshot shows an IDE window titled "ArraySum - Main.java". The code is as follows:

```
1 package com.shailendra.kumar;
2
3 public class Main {
4
5     public static void main(String[] args) {
6
7         ArraySum arraySum=new ArraySum();
8
9         arraySum.take_input();
10
11     }
12 }
13
14 |
```

The IDE interface includes a menu bar (File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, Help), a breadcrumb trail (ArraySum > src > com > shailendra > kumar > Main), a tab bar (Main.java, ArraySum.java), a sidebar with "1: Project", "2: Structure", and "3: Favorites" views, and a bottom status bar showing "4: Run", "5: Problems", "6: TODO", "Terminal", and "Build". A message at the bottom states: "Build completed successfully in 3 s 38 ms (a minute ago)".

The screenshot shows an IDE window titled "ArraySum - ArraySum.java". The menu bar includes File, Edit, View, Navigate, Code, Analyze, Refactor, Build, Run, Tools, VCS, Window, and Help. The breadcrumb navigation shows the path: ArraySum > src > com > shailendra > kumar > ArraySum. The editor has two tabs: Main.java and ArraySum.java. The code in ArraySum.java is as follows:

```
1 package com.shailendra.kumar;
2
3 import java.util.Scanner;
4
5 public class ArraySum {
6
7     public void take_input(){
8
9         int[] numbers= new int[5];
10
11         int sum=0;
12
13         for (int i=0; i<5;i++){
14
15             Scanner sc=new Scanner(System.in);
16
17             System.out.println("Enter a number");
18
19             numbers[i]=sc.nextInt();
20
21             sum = sum + numbers[i];
22         }
23
24         System.out.println("The sum is = "+sum);
25     }
26 }
27
28 |
```

The left sidebar contains three panels: "1: Project" showing the file structure, "2: Structure" showing the class structure, and "2: Favorites". The bottom status bar shows icons for Run, Problems, TODO, Terminal, and Build, along with the message: "Build completed successfully in 3 s 38 ms (3 minutes ago)".

```
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help ArraySum - ArraySum.java
ArraySum > src > com > shailendra > kumar > ArraySum
Main.java x ArraySum.java x
23
24     System.out.println("The sum is = "+sum);
25 }
26
27
28
29
Run: Main x
D:\Java\jdk-11.0.1\bin\java.exe "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2020.
Enter a number
2
Enter a number
4
Enter a number
6
Enter a number
8
Enter a number
10
The sum is = 30
Process finished with exit code 0
4: Run 6: Problems TODO Terminal Build
Build completed successfully in 2 s 899 ms (a minute ago)
```

By Shailendra Kumar

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