SQA class 5 & 6

Assignee	
Status	Done
Summary	This document covers topics related to object-oriented programming in Java, including arrays, odd and even number checks, and leap year checks. It also includes examples of inheritance and abstract classes. Homework assignments are also included.
Due	
Project	
Sub-tasks	SQA
Parent-task	
Priority	
Tags	

16/6/2023 5th class:

object oriented

Array & APP.

till now we storer single value, for that we use string, int, float double etc. but when we have to input a group of number or multiple value we have to use array. its main significant is to store multiple values.

- array start from 0 .
- data is store in array as value. not serial number or other criteria.

odd even check”

```
import java.util.Scanner;

public class evenodd {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
```

```
        System.out.print("Enter a number: ");
        int number = scanner.nextInt();
        if (number % 2 == 0) {
            System.out.println("The number is even.");
        } else {
            System.out.println("The number is odd.");
        }
    }
}
```

array code:

```
import java.util.Scanner;

public class array {
    public static void main(String[] args) {
        int n;
        Scanner sc = new Scanner(System.in);
            System.out.println("input the value:");
            n = sc.nextInt();

        int[] array = new int[n];
        for (int i = 0; i < n; i++) {
            System.out.print("Enter the value for element " + i + ": ");
            array[i] = sc.nextInt();
        }

        // Print the array elements

        System.out.println("The array elements are:");
        for (int element : array) {
            System.out.print(element + " ");
        }
    }
}
```

array even number:

```
import java.util.Scanner;

public class array_even_num {
    public static void main(String[] args) {
        int n;
        Scanner sc = new Scanner(System.in);
        System.out.println("input the value for even numbers:");
        n = sc.nextInt();

        int[] array = new int[n];
        for (int i = 0; i < n; i++) {

            array[i] = i*2;
        }
        System.out.println("The array elements are:");
        for (int element : array) {
            System.out.print(element + " ");
        }
    }
}
```

array odd num:

```
import java.util.Scanner;

public class array_odd_num {


        public static void main(String[] args) {
            // Create a Scanner object to read user input
            Scanner scanner = new Scanner(System.in);

            // Get the limit of the odd series
            System.out.print("Enter the limit of the odd series: ");
            int limit = scanner.nextInt();

            // Create an array to store the odd numbers
            int[] oddNumbersArray = new int[limit];

            // Iterate through the array and add odd numbers to it
            for (int i = 1; i < limit; i++) {
                if (i % 2 != 0) {
                    oddNumbersArray[i - 1] = i;
                }
            }

            // Print the odd numbers
            System.out.println("The odd numbers are:");
            for (int oddNumber : oddNumbersArray) {
                if (oddNumber > 0) {
                    System.out.print(oddNumber + " ");
                }
            }
        }
    }
```

jhamela code for array odd num:

```
import java.util.Scanner;
import static java.lang.System.*;
import java.util.Arrays;

public class array_odd_num {


    public static void main(String[] args) {
        Scanner scanner = new Scanner(in);
        for(  ;  ; ) {
            System.out.print("\n Enter the limit of the odd series: ");
            int limit = scanner.nextInt();
            int[] oddNumbersArray = new int[limit];
            for (int i = 1; i < limit; i++) {
                if (i % 2 != 0) {
                    oddNumbersArray[i - 1] = i;
                }
            }
            System.out.println("The odd numbers are:");
            for (int oddNumber : oddNumbersArray) {
                if (oddNumber != 0) {
                    System.out.print(oddNumber + " ");
                }
            }
```

```
            int[] array = new int[oddNumbersArray.length / 2];
            int j = 0;
            int k = oddNumbersArray.length / 2;
            System.out.println("the length :" + k);
            for (int i = 0; i <= k+1 ; i++) {  // keno +1 korsi jni na.. lagse tai korsi , dlt koreo dya jbe...
                if (oddNumbersArray[i] != 0) {
                    array[j] = oddNumbersArray[i];
                    j++;
                }
            }
            System.out.println("the array is:" + "\n" + Arrays.toString(array));
            // Print the values from array
            System.out.println("\nThe values from oddNumbersArray are:");
            for (int value : array) {
                System.out.print(value + " ");
            }
        }
    }
}
```

output is:

```
Enter the limit of the odd series: 10
The odd numbers are:
1 3 5 7 9 the length :5
the array is:
[1, 3, 5, 7, 0]
```

odd even find and count:

```
import java.util.Arrays;
import java.util.Scanner;

public class oddevencount {

        public static void main(String[] args) {
            int n;
            Scanner sc = new Scanner(System.in);
            System.out.println("input the value:");
            n = sc.nextInt();
            int k=0;
            int l=0;
            int[] array = new int[n];
            for (int i = 0; i < n; i++) {
                System.out.print("Enter the value for element " + i + ": ");
                array[i] = sc.nextInt();
                int h = array[i];
                if(h%2==0){
                    k++;
                } else  {
                    l++;
                }
            }
            System.out.println("the array is :" + Arrays.toString(array));
            System.out.println("total even numbers:" + k );
            System.out.println("total odd numbers:" + l );
    }

}
```

from a series odd even count:

```
import java.util.Arrays;
import java.util.Scanner;

public class evenoddcountformserise {
    public static void main(String[] args) {
        int n;
        Scanner sc = new Scanner(System.in);
        System.out.println("input the value:");
        n = sc.nextInt();
        int k=0;
        int l=0;
        int[] array = new int[n];
        for (int i = 0; i < n; i++) {
            //System.out.println("Enter the value for element " + i + ": ");
            array[i] = i;
            if(i%2==0){
                k++;
            } else  {
                l++;
            }
        }
        System.out.println("the array is :" + Arrays.toString(array));
        System.out.println("total even numbers:" + k );
        System.out.println("total odd numbers:" + l );
    }
}
```

homework:

2. ODD EVEN investigation and sumation:

```
import java.util.Arrays;
import java.util.Scanner;

public class oddevencount {

        public static void main(String[] args) {
            int n;
            Scanner sc = new Scanner(System.in);
            System.out.println("input the value:");
            n = sc.nextInt();
            int k=0;
            int l=0;
            int sumod= 0;
            int sumev = 0;
            int[] array = new int[n];
            for (int i = 0; i < n; i++) {
                System.out.print("Enter the value for element " + i + ": ");
                array[i] = sc.nextInt();
                int h = array[i];
                if(h%2==0){
                   sumev = h+sumev;
                    k++;
                } else  {
                    sumod = h+sumod;
                    l++;
                }
```

```
            }
            System.out.println("the array is :" + Arrays.toString(array));
            System.out.println("total odd numbers:" + l );
            System.out.println("total odd sum numbers:" + sumod );
            System.out.println("total even numbers:" + k );
            System.out.println("total even sum numbers:" + sumev );
    }

}
```

leap year:

```
import java.util.Scanner;

public class leapyear {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a year: ");
        int year = scanner.nextInt();


        boolean isLeapYear = (year % 400 == 0) || ((year % 4 == 0) && (year % 100 != 0));
        if (isLeapYear) {
            System.out.println("The year is a leap year.");
        } else {
            System.out.println("The year is not a leap year.");
        }
    }
}
```

17/06/2023 6th class:

public void cow extends animal : that means onno code theke animal nam er kono ffunction thke all character gulo niye nise

parents code:

```
public class govt {
    public void school(int x){
        if(x == 1) {
            System.out.println("he is present");
        } else {
            System.out.println("he is absent");
        }
    }

}
```

or another parents code:

```
public class govt {
    public boolean isPresent(int x){
        return x == 2;
    }

    public void school(int x){
        if(isPresent(x)) {
            System.out.println("he is present");
        } else {
            System.out.println("he is absent");
        }
    }
```

child code:

```
import java.util.Scanner;

public class student  extends govt{
    public static void main(String[] args) {
        student st = new student();
        Scanner sc = new Scanner(System.in);
        int x = sc.nextInt();
        st.school(x);
    }
}
```

for “infinite student” the child code is:

```
import java.util.Scanner;

public class student  extends govt{
    public static void main(String[] args) {
        student st = new student();
        Scanner sc = new Scanner(System.in);
        for ( ; ; ) {
            int x = sc.nextInt();
            st.school(x);
        }
    }
}
```

Abstract rules:

parents code:

```
package abstracts;

public abstract class home {
    public abstract void function1(); //ei function er under e kisu likha jabe na .. ja likhar child code e likte hbe
    public abstract void function2();
}
```

child code:

```
package abstracts;

public class home1 extends home{
    @Override
    public void function1() {
        System.out.println("kkl");
    }
    public void function2() {
        System.out.println("ssss");
    }

    public static void main(String[] args) {
        home1 h = new home1();
        h.function1();
        h.function2();
    }
}
```