1.public class prime\_or\_not{

     public static boolian isprime(double n){

        if (n = 0){

          return false;}

        else {

          for (double i = 2; i<=n;i++){

              double count = 0;

              if (n%i==0){

                count++;

               }}

           if (count == 1){

               return true;}

           else {

              return false;

 }}}

public static void main(string[]args){

     system.out.printl("prime number between 1 to 50: " );

            for (double i = 1;i <= 50;i++){

              isprime(i);

               system.out.println(" "+i);

}}

2.  import java.util.scanner;

     public class palindrome\_or\_not{

     public static void main(string[]args){

        scanner sc = new scanner(system.in);

        system.out.printl("Enter a number: ");

        int n = input.nextint();

        if (ispalindrome(n)){

            system.out.println("number is a palindrome" );}

        else {

           system.out.println("number is not a palindrome");}

}}

public static boolian ispalindrome(int n) {

       String str = Integer.toString(num);

       int len = str.length();

       for (int i = 0; i < len / 2; i++) {

         if (str.charAt(i) != str.charAt(len - i - 1)) {

            return false;}}

         return true;  
}

3. a) public class StringArrayExample {

        public static void main(String[] args) {

         String[] Week = {"Sunday", "Monday", "Tuesday", "Wednesday", "Thursday", "Friday", "Saturday"};  
  
  
  b) for (int i = 0; i < Week.length; i++) {

          System.out.println(Week[i]);}}}

4. a) public class StringArrayExample {

         public static void main(String[] args) {

           int[] numarray=new int[15];

    b) system.out.println(""+numarray[9]);

    c)  int numarray[4] = 35;

    d) int numarray[8]= numarray[5] + numarray[12];

5. import java.util.HashSet;

    import java.util.Scanner;

    public class RemoveDuplicatesExample {

     public static void main(String[] args) {

       Scanner scanner = new Scanner(System.in);

       String input = scanner.nextLine();

       char[] charArray = input.toCharArray();

   HashSet<Character> set = new HashSet<Character>();

   for (char c : charArray) {

     set.add(c);}

StringBuilder sb = new StringBuilder();

 for (Character c : set) {

    sb.append(c);}

String b = sb.toString();

System.out.println(" " + b);

}}

6.a)   x[0] is 0

 because the value of x[0] is not declared in any place , so the first element of the array is set as default value of 0.

   b)  1

because it is the code for find the smallest number . if the code line "system.out.print(que)" present within the for loop ,it will used as a sort.

present code will store the first value of the array is smaller element as default, if the next value of the array is smaller than the default ,it will store on que . at the end of the for loop , the code will find the smallest element of the array.

 7. a)

|  |  |
| --- | --- |
| advantages of array | disadvantages of array |
| it is mutable | it only stores same data type |
| extra memory allongation | wastage of memory |
| access of every element is easy | it needs array size previously |

b)

|  |  |
| --- | --- |
| array | Object |
| array is a subclass of object, so array had all the character of object. | object has array in as their subclass ,so object is higher than array |
| An object of Object is not an object of Array | An object of Array is also an object of Object |

c)

array is store in a heap area ,where the array variable name keyword is stored with their noted array size.

d) yes ,string is immutable. but we can use stringbuilder and stringbuffer to make it as mutable.

8. import java.util.scanner;

    public class StringArrayExample {

       public static void main(String[] args) {

       scanner sc = new scanner(system.in);

        int[] n=new int[6];

        int a=n.length();

        for (i=0;i<=a;i++){

         int n[i] = input.nextint();}

        int e = n[0];

        for (int k=0;k<n.length;k++){

         if (n[k]>e){

           e = x[k]; }}

        system.out.print(e);}}

9.  import java.util.scanner;

    public class khighest {

       public static void main(String[] args) {

       scanner sc = new scanner(system.in);

        int[] n=new int[6];

        int a=n.length();

       system.out.print("arr = ")

        for (i=0;i<=a;i++){

           int n[i] = input.nextint();}

        Arrays.sort(n);

        system.out.println("k = ");

        int k = input.nextint();

        system.out.println(""+n[a - k]);}}