**TASK 9**

**JAVA PROGRAMMING QUESTION**

**1. Write a program to check whether a given string is a palindrome or not using for loop and**

**if-else statement.**

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| **package** task9;  **import** java.util.Scanner;  **public** **class** Palindrome {  **public** **static** **void** main(String[] args) {  String str;  **int** len;  **boolean** flag=**true**;  Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the String");  str=scan.nextLine();  // char string[]=str.toCharArray();  len=str.length();  //System.out.println(len +" "+str.charAt(0)+" "+str.charAt(len-1));  **for**(**int** i=0;i<len;i++) {  **if**(str.charAt(i)!=str.charAt(--len)) {  flag=**false**;  }  }  **if**(flag)  System.***out***.println(" The given string "+str+" is Palindrome");  **else**  System.***out***.println(" The given string "+str+" is not a Palindrome");  scan.close();  }  } |

***Output:-***

Enter the String

deified

The given string deified is Palindrome

Enter the String

kumar

The given string kumar is not a Palindrome

**2. Write a program to get and reverse the string from an user and print the results**

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| **package** task9;  **import** java.util.Scanner;  **public** **class** ReverseString {  **public** **static** **void** main(String[] args) {  String str,rev = "";    Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the String");  str=scan.nextLine();  **for** (**int** i=str.length()-1;i>=0;i--) {  //System.out.print(str.charAt(i));  rev=rev+str.charAt(i);  }  System.***out***.println(rev);  scan.close();  }  } |

**Output:-**

Enter the String

jaikumar

ramukiaj

**3. Write a program to print the given below pattern.**

**Sample Input:**

**4**

**Sample Output:**

**1**

**23**

**456**

**78910**

|  |
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| **package** task9;  **import** java.util.Scanner;  **public** **class** Pattern1 {  **public** **static** **void** main(String[] args) {    **int** num,k=1;  Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the number of rows: ");  num=scan.nextInt();  **for** (**int** i=1;i<=num;i++) {  **for** (**int** j=1;j<=i;j++) {  System.***out***.print(k++);  **if** (i!=j)  System.***out***.print(" ");  }  System.***out***.println();  }  scan.close();  }    } |

**Output:-**

Enter the number of rows:

6

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

16 17 18 19 20 21

**4. Write a program to print the given below pattern.**

**Sample Input:**

**5**

**Sample Output:**

**\*   \***

**\* \***

**\***

**\* \***

**\*   \***

|  |
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| **package** task9;  **import** java.util.Scanner;  **public** **class** Pattern2 {  **public** **static** **void** main(String[] args) {    **int** num;  Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the number of rows:");  num=scan.nextInt();  **int** m=1,n=num,k=1;  **for** (**int** i=1;i<=num;i++) {  **for** (**int** j=1;j<=num;j++) {  **if**(m==j&&m==i) {  System.***out***.print("\*");  m++;  }  **else** **if**( n==j) {  System.***out***.print("\*");  n--;  }  **else**  System.***out***.print(" ");    }  System.***out***.println();  }    }  } |

**Output:-**

Enter the number of rows:

9

\* \*

\* \*

\* \*

\* \*

\*

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\* \*

\* \*

\* \*

**5.Anna University Grading System. The newly appointed Vice-Chancellor of Anna University wanted to create an automated grading system for the students to check their grade. When a student enters a mark, the grading system displays the corresponding grade. Write a program to solve the given problem. The grades for marks 100 - S, 90-99 is A, 80-89 is B, 70-79 is C, 60-69 is D, 50-59 is E and less than 50 is F.**

**Input format:**

The input consists of one integer which corresponds to the marks scored by the student

**Output format:**

Ifa student marks greater than 100, print "Invalid Input". Otherwise, print the grade.

**Sample Input:**

78

**Sample Output:**

C

|  |
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| **package** task9;  **import** java.util.Scanner;  **public** **class** AnnaUniversityGradingSystem {  **public** **static** **void** main(String[] args) {    **int** mark;  Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the Mark");  mark=scan.nextInt();  **if** (mark >100)  System.***out***.println("Invalid Input");  **else** **if**(mark==100)  System.***out***.println("S");  **else** **if**(mark>=90)  System.***out***.println("A");  **else** **if**(mark>=80)  System.***out***.println("B");  **else** **if**(mark>=70)  System.***out***.println("C");  **else** **if**(mark>=60)  System.***out***.println("D");  **else** **if**(mark>=50)  System.***out***.println("E");  **else**  System.***out***.println("F");  }  } |

**Output:-**

Enter the Mark by the student:

85

B

**6.Write a program to calculate the hotel tariff. The room rent is 20% high during peak**

**seasons [April-June, November-December]. Note: Use the switch construct.**

**Input format:**

**The first input containing an integer which denotes the number of the month**

**The second input containing the floating point number which denotes the room**

**rent per day**

**The third input containing an integer which denotes the number of days stayed in**

**the hotel**

**Output format:**

**Print the hotel tariff to be paid in floating point with 2 decimal places**

**Refer the sample output for formatting**

**Sample Input:**

**3**

**1500**

**2**

**Sample Output:**

**3000.00**

|  |
| --- |
| **package** task9;  **import** java.util.Scanner;  **public** **class** HotalTariff {  **public** **static** **void** main(String[] args) {  **int** month,days;  **float** fixedPrice,price;  Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the Month");  month=scan.nextInt();  System.***out***.println("Enter the price per day");  fixedPrice=scan.nextFloat();  System.***out***.println("Enter the no of days");  days=scan.nextInt();  **switch**(month) {  **case** 1:  price=fixedPrice\*days;  **break**;  **case** 2:  price=fixedPrice\*days;  **break**;  **case** 3:  price=fixedPrice\*days;  **break**;  **case** 7:  price=fixedPrice\*days;  **break**;  **case** 8:  price=fixedPrice\*days;  **break**;  **case** 9:  price=fixedPrice\*days;  **break**;  **case** 10:  price=fixedPrice\*days;  **break**;  **default**:  price=(fixedPrice+(fixedPrice/5))\*days;  **break**;    }  System.***out***.println("The total price is :"+price);  System.***out***.println("The price will be higher if its Apr,May,Jun,Nov,Dec:");  }  } |

**Output:-**

Enter the Month

4

Enter the price per day

1500

Enter the no of days

2

The total price is :3600.0

The price will be higher if its Apr,May,Jun,Nov,Dec:

**7. write a program to calculate the largest numbers among three numbers**

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| **package** task9;  **import** java.util.Scanner;  **public** **class** LargestNumber {  **public** **static** **void** main(String[] args) {    **int** a,b,c;  Scanner scan=**new** Scanner(System.***in***);  System.***out***.println("Enter the Number 1");  a=scan.nextInt();  System.***out***.println("Enter the Number 2");  b=scan.nextInt();  System.***out***.println("Enter the Number 3");  c=scan.nextInt();  **if**(a>b && a>c)  System.***out***.println(a+" is the largest number");  **else** **if**(b>a && b>c)  System.***out***.println(b+" is the largest number");  **else**  System.***out***.println(c+" is the largest number");  }  } |

**Output:-**

Enter the Number 1

23

Enter the Number 2

90

Enter the Number 3

765

765 is the largest number