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| **No.** | **Hands-on Assignment** | **Topics Covered** | **Status** |
| 1 | Write a program to check if a given integer number is Positive, Negative, or Zero.  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[]) {  **int** a;  a=Integer.*parseInt*(args[0]);  **if**(a>0)  System.***out***.println("positive");  **else** **if**(a<0)  System.***out***.println("negative");  **else**  System.***out***.println("zero");    }  } | If Statement |  |
| 2 | Write a program to check if a given integer number is odd or even.  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[]) {  **int** a;  a=Integer.*parseInt*(args[0]);  **if**(a%2==0)  System.***out***.println("EVEN");  **else**  System.***out***.println("ODD");    }  } | If Statement |  |
| 3 | Write a program to check if the program has received command line arguments or not.  If the program has not received arguments then print "No Values", else print all the values in a single line separated by ,(comma)  Example1) java Example  O/P: No values  Example2) java Example Mumbai Bangalore  O/P: Mumbai,Bangalore  [Hint: You can use length property of an array to check its length]  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[]) {    **if**(args.length==0)  System.***out***.println("no values");  **else**  {  **for**(String i:args)  System.***out***.println(i+",");  }    }  } | If Statement |  |
| 4 | Initialize two character variables in a program and display the characters in alphabetical order.  Example1) if the first character is 's' and second character is 'e' then the output should be e,s  Example2) if the first character is 'a' and second character is 'e', then the output should be a,e  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[]) {    **char** a1='b';  **char** a2='a';  **if**(a1>a2)  System.***out***.println(a2+" "+a1);  **if**(a1<a2)  System.***out***.println(a1+" "+a2);  }  } | If Statement |  |
| 5 | Initialize a character variable in a program and  print 'Alphabhet' if the initialized value is an alphabhet,  print 'Digit' if the initialized value is a number, and  print 'Special Character', if the initialized value is anything else.  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[]) {  **char** a1='0';  **if**((a1>='A'&&a1<='Z')||(a1>='a'&&a1<='z'))  System.***out***.println("Alphabhet");  **else** **if**(a1>47&&a1<58)  System.***out***.println("digit");  **else**  System.***out***.println("Special character");    }  } | If Statement |  |
| 6 | Write a program to accept gender ("Male" or "Female") and age from command line arguments and print the percentage of interest based on the given conditions.  If the gender is 'Female' and age is between 1 and 58, the percentage of interest is 8.2%.  If the gender is 'Female' and age is between 59 and 100, the percentage of interest is 9.2%.  If the gender is 'Male' and age is between 1 and 58, the percentage of interest is 8.4%.  If the gender is 'Male' and age is between 59 and 100, the percentage of interest is 10.5%.  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[]) {  **int** age=Integer.*parseInt*(args[1]);  **if**(args[0].equals("male"))  {  **if**(age>=1&&age<=58)  System.***out***.println("8.4%");  **if**(age>=59&&age<=100)  System.***out***.println("10.5%");  }  **if**(args[0].equals("female"))  {  **if**(age>=1&&age<=58)  System.***out***.println("8.2%");  **if**(age>=59&&age<=100)  System.***out***.println("9.2%");  }      }  } | If Statement |  |
| 7 | Initialize a character variable with an alphabhet in a program.  If the character value is in lowercase, the output should be displayed in uppercase in the following format.  Example1)  i/p:a  o/p:a->A  If the character value is in uppercase, the output should be displayed in lowercase in the following format.  Example2)  i/p:A  o/p:A->a  **package** A;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **char** a1='C';  **char** a;  **if**(a1>='A'&&a1<='Z')  System.***out***.println(a1+"->"+Character.*toLowerCase*(a1));  **else**  System.***out***.println(a1+"->"+Character.*toUpperCase*(a1));  }  } | If Statement |  |
| 8 | Write a program to receive a color code from the user (an Alphabhet).  The program should then print the color name, based on the color code given.  The following are the color codes and their corresponding color names.  R->Red, B->Blue, G->Green, O->Orange, Y->Yellow, W->White.  If color code provided by the user is not valid then print "Invalid Code".  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {    Scanner s=**new** Scanner(System.***in***);  **char** i=s.next().charAt(0);  **switch**(i)  {  **case**'R':  System.***out***.println("Red");  **break**;  **case**'B':  System.***out***.println("Blue");  **break**;  **case**'G':  System.***out***.println("green");  **break**;  **case**'O':  System.***out***.println("Orange");  **break**;  **case**'Y':  System.***out***.println("Yellow");  **break**;  **case**'w':  System.***out***.println("white");  **break**;  **default**:  System.***out***.println("invalide code");    }  }  } | Switch Statement |  |
| 9 | Write a program to receive a number and print the corresponding month name.  Example1)  C:\>java Sample 12  O/P Expected : December  Example2)  C:\>java Sample  O/P Expected : Please enter the month in numbers  Example3)  C:\>java Sample 15  O/P Expected : Invalid month  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **if**(args.length==0)  System.***out***.println("Please enter the month in numbers");  **int** i=Integer.*parseInt*(args[0]);    **switch**(i)  {  **case** 1:  System.***out***.println("january");  **break**;  **case** 2:  System.***out***.println("february");  **break**;  **case** 3:  System.***out***.println("march");  **break**;  **case** 4:  System.***out***.println("April");  **break**;  **case** 5:  System.***out***.println("may");  **break**;  **case** 6:  System.***out***.println("june");  **break**;  **case** 7:  System.***out***.println("july");  **break**;  **case** 8:  System.***out***.println("august");  **break**;  **case** 9:  System.***out***.println("september");  **break**;  **case** 10:  System.***out***.println("october");  **break**;  **case** 11:  System.***out***.println("november");  **break**;  **case** 12:  System.***out***.println("december");  **break**;  **default**:  System.***out***.println("Invalid month");    }  }  } | Switch Statement |  |
| 10 | Write a program to print numbers from 1 to 10 in a single row with one tab space.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **for**(**int** i=1;i<=10;i++)  System.***out***.print(i+"\t");  }    } | For Loop |  |
| 11 | Write a program to print even numbers between 23 and 57. Each number should be printed in a separate row.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **for**(**int** i=23;i<=57;i++) {  **if**(i%2==0)  System.***out***.println(i);}  }    } | For Loop |  |
| 12 | Write a program to check if a given number is prime or not.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **int** i,c=0;  Scanner sc=**new** Scanner(System.***in***);  **int** k=sc.nextInt();  **for**(i=1;i<=k;i++)  {  **if**(k%i==0)  c++;  }  **if**(c==2)  System.***out***.println("prime");  **else**  System.***out***.println("not prime");      }    } | For Loop |  |
| 13 | Write a program to print prime numbers between 10 and 99.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **int** i,c=0,j;    **for**(i=10;i<=99;i++)  {c=0;  **for**(j=1;j<=i;j++)  {  **if**(i%j==0)  c++;  }  **if**(c==2)  System.***out***.println(i);  }  }  } | For Loop |  |
| 14 | Write a Java program to find if the given number is prime or not.  Example1)  C:\>java Sample  O/P: Please enter an integer number  Example2)  C:\>java Sample 1  O/P:1 is neither prime nor composite  Example3)  C:\>java Sample 0  O/P: 0 is neither prime nor composite    Example4)  C:\>java Sample 10  O/P: 10 is not a prime number  Example5)  C:\>java Sample 7  O/P : 7 is a prime number  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** i=sc.nextInt();  **if**(i==0)  System.***out***.println("0 is neither prime nor composite");  **else** **if**(i==1)  System.***out***.println("41 is neither prime nor composite");  **else** {  **int** c=0,j;      **for**(j=1;j<=i;j++)  {  **if**(i%j==0)  c++;  }  **if**(c==2)  System.***out***.println(i+" is a prime number");  **else**  System.***out***.println(i+" is not a prime number");  }  }  } | For Loop |  |
| 15 | Write a program to print the sum of all the digits of a given number.  Example1)  I/P:1234  O/P:10  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** i=sc.nextInt();  **int** r=0;  **while**(i!=0)  {  r=r+i%10;  i=i/10;  }  System.***out***.println(r);    }  } | For Loop |  |
| 16 | Write a program to print \* in Floyds format (using for and while loop)  \*  \* \*  \* \* \*  Example1)  C:\>java Sample  O/P: Please enter an integer number  Example2)  C:\>java Sample 3  O/P :  \*  \* \*  \* \* \*  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** i=0,j=0;  **for**(i=0;i<n;i++)  {  **for**(j=0;j<=i;j++)  {  System.***out***.print("\* ");  }  System.***out***.println();  }    }  } | For Loop |  |
| 17 | Write a program to reverse a given number and print  Example1)  I/P: 1234  O/P:4321  Example2)  I/P:1004  O/P:4001  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  Scanner sc=**new** Scanner(System.***in***);  **int** n=sc.nextInt();  **int** r=0;  **while**(n!=0)  {  r=n%10;  System.***out***.print(r);  n=n/10;  }  }  } | While Loop |  |
| 18 | Write a Java program to find if the given number is palindrome or not  Example1)  C:\>java Sample 110011  O/P: 110011 is a palindrome  Example2)  C:\>java Sample 1234  O/P: 1234 is not a palindrome  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  String s,r="";  Scanner sc=**new** Scanner(System.***in***);  s=sc.nextLine();  **int** l=s.length();  **for**(**int** i=(l-1);i>=0;i--)  {  r=r+s.charAt(i);  }  **if**(s.contentEquals(r))  System.***out***.println("palindrome");  **else**  System.***out***.println("not palindrome");  }  } | While Loop |  |
| 19 | Write a program to print first 5 values which are divisible by 2, 3, and 5.  **package** A;  **import** java.util.Scanner;  **public** **class** Akanksha {  **public** **static** **void** main(String args[])  {  **int** k=0;  **for**(**int** i=5;k<5;i++)  {  **if**(i%2==0 && i%3==0 && i%5==0)  {  k++;  System.***out***.print(i+" ");  }  }  }  } | While Loop |  |