**YUVASHAKTHI\_JAVA\_LEARNING PATH**

**1**.Basic arithematic operations(+,-,\*,/,%)

* Exercises-Area & perimeter of Different shapes.

**2**. Command Line argument method

* Exercises-Area & perimeter of Different shapes.

**3**.Excercises

1.Swapping(Total 5logics)

* Swapping of 2 numbers with 3rd variable.
* Swapping of 3 numbers with 4th variable.
* Swapping a&b without using 3rd variable(by arithematic).
* Swapping a,b,c without using 4th variable(by arithematic).
* Other 3 logics.

2.Reverse a number(3Logics)

3.Write a program to get input from user and print sum & product of them &

* Print both output by using single output line

4.Ask user to give two double input for length and breadth of a rectangle and print area type casted to integer.

4.Interactive method

By using try catch exception method

Excercises

* 1. Basic arithematic operations
  2. Finding remainder without using module operator.
  3. Get student details&marks as input and show Total& avg marks.

5. Relational operators.

* Less than
* Lessthan equal to
* Greater than equal to
* Greather than
* Equals to
* Not equals to

6. Logical operators

* And && (Excecuted only when both conditions satisfied)
* Or !! (Any one condition is true)
* Not 1(given condition false)

7.Multiple Assignment operators

* a=b=c=10

8.Other special assignment operators

* a+=10
* a-=10
* a\*=10
* a/=10
* a%=10

9.Conditional statements

* if
* if-else
* if-else ladder
* Nested if

Study flowchart of every statement

10. if Excercises

1. Check a is greater than b
2. Check a is less than b
3. Check number is positive or negative or neutral
4. Check a is even or odd
5. Biggest of 3 numbers
6. Smallest of 3 numbers
7. Check person is Eligible to vote or not

11. if-else Excercises

1. Biggest of 2 numbers
2. Smallest of 2 numbers
3. Check number is positive or negative or neutral
4. Check given Number is even or odd
5. Check person is Eligible to vote or not

12. if-else ladder

1. Biggest of 2 numbers
2. Smallest of 2 numbers
3. Check given number is positive or negative or neutral
4. Find given age of the person is child or adult or senior citizen
5. If input is 1- print addition of 2nos,if 2- sub,if 3- multi,if 4-division,if 5-modulus or remainder.
6. If input is given as (+) do addition of 2nos,if (-) do sub,if (\*) do multi,if (/) do division,if (%) modulus or remainder.
7. Get temperature value from user & display a suitable message .
8. Print equivalent description for grades what students got.
9. Print equivalent day for a given number
10. Print equivalent month for a given number
11. Print no.of days of a given month(month recognized by its number)
12. Print Student grade for a subject(Excellent-E,v.good-V).
13. To find given character is vowel or consonant
14. EB-bill calculator
15. Write a program to findout the commission amount.

13. Nested-if

1. Biggest of 3 number
2. Smallest of 3 number
3. Leap year
4. Student marks-Grade

14.Un-conditional statement

* Switch case (default)

Study flowchart of switch case

15.Switch-Excercises

1. Program to print days in words
2. Program to calculate deg celcius,Fahrenheit,Kelvin
3. Program to print entered number in words
4. Program for calculator function(1=add;2=sub;3=multi;4=div;5=Modulus)
5. Program for calculator function(+=add;-=sub;\*=multi;/=div;%=Modulus)
6. Vowel or consonant
7. Calculate SI & CI
8. Print total num of days in a month.

16.Operators

* Post-Increment operator(i++)
* Post-Decrement operator(i--)
* Pre-Increment operator(++i)
* Pre-Decrement operator(--i)

Practice operators manually.

17.Control statements

1. while
2. do-while
3. for loop

18. while ,do-while & for loop Excercises

1. Print natural numbers
2. Print odd natural numbers
3. Print even natural numbers
4. Print natural numbers in reverse order
5. Print odd natural numbers in reverse order
6. Print Even natural numbers in reverse order
7. Multiplication table
8. Sum of ‘n’ natural numbers
9. Factorial of a given number
10. To add odd numbers bet a given input
11. To add odd numbers bet a given input
12. Add square of all num bet given input
13. Add square of all Odd nums bet given input
14. Add square of all Even nums bet given input
15. 1!+2!+3!+…..+n!
16. 1!+3!+5!+…..+n!
17. 2!+4!+6!+…..+n!
18. (1/1!)+(1/2!)+(1/3!)+…..+(1/n!)
19. (1/1!)+(1/3!)+(1/5!)+…..+(1/n!)
20. (1/2!)+(1/4!)+(1/6!)+…..+(1/n!)
21. (1/12)+(1/22)+(1/32)+…..+(1/n2)
22. (1/12)+(1/32)+(1/52)+…..+(1/n2)
23. (1/22)+(1/42)+(1/62)+…..+(1/n2)
24. Cube of n numbers till n?
25. Perfect number
26. Reverse a number
27. Prime num
28. Adam number
29. Prime adam number
30. Biggest of n number
31. To print each character in entered string
32. Print numbers from -10 to -1
33. Print count no of digits in a number
34. Print sum of digits of number
35. Sum of n numbers
36. Print product of digits of numbers
37. Smallest of n numbers
38. Sum of odd n numbers
39. Sum of even n numbers
40. Sum of n numbers and average
41. Fibonacci series
42. Amstrong number
43. Palindrome num
44. Convert given number from decimal to binary?
45. Convert given number from decimal to octal?
46. Convert given number from decimal to hexadecimal?
47. Convert given number from binary to decimal?
48. Convert given number from binary to octal?
49. Convert given number from binary to Hexadecimal?
50. Convert given number from octal to decimal?
51. Convert given number from octal to Hexadecimal?
52. Convert given number from octal binay?
53. Convert given number from Hexadecimal to decimal?
54. Convert given number from Hexadecimal to binary?
55. Convert given number from Hexadecimal to octal?

19.Nested for loop-patterns

-nearly 60 patterns

20.String Functions

1. String.charAt()
2. Dfg
3. Dhbfgdf
4. Dgh
5. Gfdh
6. Fdg
7. H
8. Fdgh
9. Fg
10. Hj
11. Gfjh
12. G
13. Fghj
14. Gf
15. Fg
16. Fdg
17. Df
18. Df
19. Fdg

21.StringBuffer

1. Fg
2. Fgfdsg
3. Dsfg
4. Fds
5. Fg
6. Dsfg
7. Fd

22.Math Functions

1. Ghdf
2. H
3. D
4. Fdgf
5. Fdg
6. Fdg
7. Fdg
8. Dfg
9. Dfg
10. Fdg

23.1D Arrays