**Day.1**

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| Introduction to Object Oriented Programming |
| Introduction to Java as a Programming Language |
| Arithmetic Operators |
| Relational and Logical Operators |
| The if statement, The switch statement |
| Nesting of if statements |
| The for statement |
| Nested for loops |
| The while statement |
| The do while statement |
| The break statement |

**Q1**) Determine whether the given year is leap year or not (Read the input through console).

**Q2**)

Tax slabs for general

0 to 1,80,000 No tax

1,80,001 to 5,00,000 10%

5,00,001 to 8,00,000 20%

Above 8,00,000 30%

Income tax slabs 2011-2012 for Women

0 to 1,90,000 No tax

1,90,001 to 5,00,000 10%

5,00,001 to 8,00,000 20%

Above 8,00,000 30%

Write if statements to achieve this.

Make sure that you indent the code well so that it is readable.

**Q3**) A shopkeeper sells three products whose retail prices are as follows:

Write an application that reads a series of pairs of numbers as follows:

Product No Product Code Retail Price

1 A 22.50

2 B 44.50

3 C 9.98

a) Product number or code (Code is not case sensitive)

b) Quantity sold

The application should use a switch statement to determine the retail price for each product. It should calculate and display the total retail value of all products sold.

**Q4**) Consider user has N eggs. Then display the no of eggs in gross (144 eggs make one gross) and no of eggs in dozen (12 eggs make one dozen) and the no of eggs that is left out remaining. The total no of eggs can be got as input through console. The program should display how many gross, how many dozen, and how many left over eggs the user has.

For example, if the input is 1342 eggs, then the program should respond

with

• Your number of eggs is 9 gross, 3 dozen, and 10

**Q5**) Write a program to display whether the given number is palindrome or not. Also, check whether the number is a prime number. If it is a prime number, display the number along with the alphabet ‘p’ appended to it.

**Q6**) Generate a random number between 1 and 100 and display the floor value and ceil value of the same.

e.g. floor(534.2) = 534

ceil(-23.78)= -23

**Q7**) Display the cube roots of the list of prime numbers till 100.

Q8) Write a program to write a Factorial of a given number using Recursion function.