**1. A)** Raju is trying to install some programming languages software and He is going through the given list. The list is as whenever a letter is given the corresponding language is displayed on the screen for Raju's selection to be installed. For example, if Raju enters 'A' or 'a' then he can select "Ada" language likewise there many languages in which he can choose. Find out which language Raju has chosen to install. (Hint: The user types in a letter of the alphabet and your program should display the corresponding language or package available. Some sample input and output are given below

## **Input Output**

A or a Ada

C or c C Language

F or f Fortran

J or j Java

P or p Python

V or v Visual C++

Using the 'switch' statement to choose and display the appropriate message. Use the default label to display a message if the input does not match any of the above letters.

**B)** Krishna is playing with his mobile and his mother tries to teach him basic arithmetic calculations in mobile. Whenever he clicks on + symbol it performs addition likewise other operations are also explained. Now Krishna is assigned to take two numbers from console using Scanner class and perform the basic arithmetic operations. Now your task is to help Krishna in choosing the symbol and its operation. (Hint: + addition, - subtraction, \*multiplication, / division operations using Switch Statement).

2. A) Day 5: Loops | HackerRank

https://www.hackerrank.com/challenges/30-loops/problem

B) Staircase | HackerRank

https://www.hackerrank.com/challenges/staircase/problem

- **3. A)** Let a number x containing n digits. If sum of each digit raised to power n is equal to the number itself, then the number is said to be Armstrong number i.e. Now your task to check whether the given number is Armstrong number or not.
- **B)** Given a number N, check if a number is perfect or not. A number is said to be perfect if sum of all its factors excluding the number itself is equal to the number. Now your task to check whether the given number is Perfect number or not.