



**NORTH WESTERN  
UNIVERSITY**

# **Object Oriented Programming Laboratory - 2102**

## **Group Lab Report**

**Submitted By**

**Submitted To**

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**Session : Spring - 2022**

**Dept. : CSE 2.1**

**Section : C**

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**Team Link : <https://icpc.global/private/teams/802906>**



# NWU\_ONE\_AND\_ZERO

CONTRIBUTION TO LAB REPORT

## ALGORITHM

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**MD. AHSANUR RAHMAN JOY**

**ID:** 20221098101

**Time Spent:** ~25 minutes

## PSEUDO CODE

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**SANJANA ALAM MAHIM**

**ID:** 20221085010

**Time Spent:** ~25 minutes

## CODING

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**SHOYIB AHMAD**

**ID:** 20221117010

**Time Spent:** ~25 minutes

## Algorithm

1. Start.
2. Read an integer 'x' as the number of integers the user will input.
3. Repeat the following steps 'x' times :
  - a. Read an integer 'n'.
  - b. Extract the last digit of 'n' by taking the remainder of 'n' divided by 10.
  - c. Extract the first digit of 'n' by repeatedly dividing 'n' by 10 until it becomes a single digit number.
  - d. Calculate the sum of the first and last digits.
  - e. Output the sum.
4. End.



## Pseudocode :

Start

Input  $x$

for  $i = 0$  to  $x-1$

Input  $n$

Set  $\text{last digit} = n \text{ Mod } 10$

while  $n > 10$

Set  $n = n \text{ Div } 10$

End while

set  $\text{first digit} = n$

Set  $\text{sum} = \text{first digit} + \text{last digit}$

Print  $\text{sum}$

End for

End

Output - project 1 (run) × Project1.java ×

Source History

```
1
2 package project.pkg1;
3 import java.util.Scanner;
4 public class Project1 {
5
6     public static void main(String[] args) {
7         int x,i;
8         Scanner s=new Scanner ( source: System.in);
9         x=s.nextInt();
10        for(i=0;i<x;i++){
11            int n,sum,firstdigit,lastdigit;
12            n=s.nextInt();
13            lastdigit=n%10;
14            while(n>10)
15            {
16                n=n/10;
17            }
18            firstdigit=n;
19            sum=firstdigit+lastdigit;
20            System.out.println( x: sum);
21        }
22    }
23 }
24 }
```

Output - project 1 (run) × Project1.java ×

run:

```
3
1234
5
2343
5
4351
5
BUILD SUCCESSFUL (total time: 18 seconds)
```