Assignment -2

- Q 1 WRITE a Program to Calculate the Average of Numbers in a given list.
- Q2. Write a program to reverse a given number by the user.
- Q 3. Write a Program to print all Numbers in a Range Divisible by a Given Number.

Problem Solution

- 1. Take in the upper range and lower range limit from the user.
- 2. Take in the number to be divided by from the user.
- 3. Using a for loop, print all the factors which is divisible by the number.
- 4. Exit.
- Q4. Write a program to Check Whether a Number is Positive or Negative.
- Q5. Write a program to take in the Marks of 5 Subjects and Display the Grade:

Runtime Test Cases

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Case 1:
Enter marks of the first subject: 85
Enter marks of the second subject: 95
Enter marks of the third subject: 99
Enter marks of the fourth subject: 93
Enter marks of the fifth subject: 100
Grade: A

Case 2:
Enter marks of the first subject: 81
Enter marks of the second subject: 72
Enter marks of the third subject: 94
Enter marks of the fourth subject: 85
Enter marks of the fifth subject: 80
Grade: B
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- Q6. Write a program to Read Two Numbers and Print Their Quotient and Remainder.
- Q7. Write a program to Accept Three Digits and Print all Possible Combinations from the Digits:

Problem Solution

- 1. Take in the first, second and third number and store it in separate variables.
- 2. Then append all the three numbers to the list.
- 3.Use three for loops and print the digits in the list if none of their indexes are equal to each other.
- 4. Exit.
- Q8. Write a Program to Find the Sum of Digits in a Number?

Problem Solution

- 1. Take the value of the integer and store in a variable.
- 2. Using a while loop, get each digit of the number and add the digits to a variable.
- 3. Print the sum of the digits of the number.
- Exit.
- Q9. Write a Program to Count the Number of Digits in a Number?
- Q10. Write a Program to Check if a Number is a Palindrome?



Problem Solution

- 1. Take the value of the integer and store in a variable.
- 2. Transfer the value of the integer into another temporary variable.
- 3. Using a while loop, get each digit of the number and store the reversed number in another variable.
- 4. Check if the reverse of the number is equal to the one in the temporary variable.
- 5. Print the final result.
- 6. Exit.

Q11. Write a Program to Print all Integers that Aren't Divisible by Either 2 or 3 and Lie between 1 and 50 .

Problem Solution

- 1. Use a for-loop ranging from 0 to 51.
- 2. Then use an if statement to check if the number isn't divisible by both 2 and 3.
- 3. Print the numbers satisfying the condition.
- 4. Exit.

Q12. Write a Program to Read a Number n and Print the Natural Numbers Summation Pattern **Problem Solution**

- 1. Take a value from the user and store it in a variable n.
- 2. Use two for loop where the value of j ranges between the values of 1 and n and value of i ranges between 1 and j.
- 3. Print the value of i and '+' operator while appending the value of i to a list.
- 4. Then find the sum of elements in the list.
- 5. Print '=' followed by the total sum.
- 6. Exit.

Q13. Write a Program to Print an Identity Matrix

Problem Solution

- 1. Take a value from the user and store it in a variable n.
- 2. Use two for loop where the value of j ranges between the values of 0 and n-1 and value of i also ranges between 0 and n-1.
- 3. Print the value of 1 when i is equal to j and 0 otherwise.
- 4. Exit

Q14. Write a Program to Print an Inverted Star Pattern.