****

***Artificial Intelligence (Lab)***

***Assignment - 4***

**Name:**

Ali Maqsood.

**Roll no:**

SU92-BSAIM-F23-050.

**Department:**

Software Engineering Department.

**Program:**

Artificial Intelligence.

**Section:**

BSAI-3A

**Question # 1:**

Code for LUHN Algorithm

**Code:**

def LHUN():

    card=input("Enter the Card Number: ")

    total=0

    reverse\_card=card[::-1]

    for i in range (len(reverse\_card)):

        num=int(reverse\_card[i])

        if i%2==1:

            num\*=2

            if num>9:

                num-=9

        total+=num

    if total%10==0:

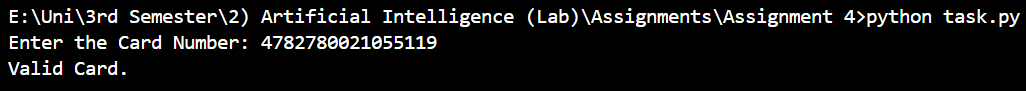
        print("Valid Card.")

    else:

        print("Invalid Card.")

LHUN()

**Output:**



**Question # 2:**

Remove Punctuations from UserInput String (without using remove function)

**Code:**

def puncutations():

    print("This program will be used to remove all the strings from the sentance.")

    input1=input("Enter the sentance: ")

    kick={",",".","?",",","!","(",")","[","]","{","}","\"","\'","`","@","/","\\","`"}

    for i in input1:

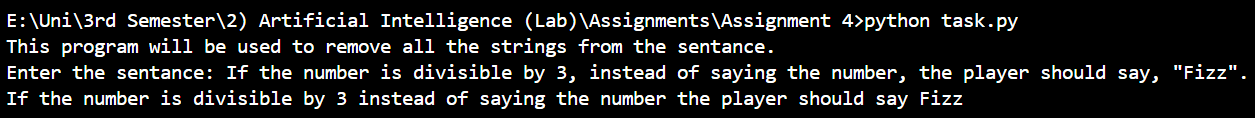
        if i in kick:

            input1=input1.replace(i,"")

    print(input1)

puncutations()

**Output:**



**Question # 3:**

Sort text (word) in Alphabetical Order (without using sort function) can use ASCII

**Code:**

def order():

    lines=input("Enter the sentence: ")

    word=lines.split()

    for i in range(len(word)-1):

        for j in range(len(word)-i-1):

            if word[j]>word[j+1]:

                word[j],word[j+1]=word[j+1],word[j]

    sorted\_lines=" ".join(word)

    print(f"Sorted Lines: {sorted\_lines}")

order()

**Output:**

