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| **EX.NO: 03** | **FUNCTIONS** |
| **DATE:** |

**PROGRAM 1:**

**1.Movie Ticket Pricing**

You're writing a function to calculate movie ticket prices based on age.   
Kids under 12: $5

Seniors (60+): $6

Everyone else: $10

Question:  
 Write a function calculate\_ticket\_price(age) that returns the correct ticket price.

Sample Input:

calculate\_ticket\_price(8) # Output: 5

calculate\_ticket\_price(30) # Output: 10

calculate\_ticket\_price(65) # Output: 6

age=int(input("Enter your age:"))

def calculate\_ticket\_price(age):

if(age<=12):

print("The ticket price is $5")

elif(age>=60):

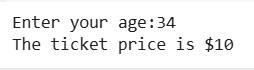
print("The ticket price is $6")

else:

print("The ticket price is $10")

calculate\_ticket\_price(age)

**OUTPUT:**

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**PROGRAM 2:**

2.You’re building a weather app and need a function to convert temperatures from Celsius to Fahrenheit

**Question**:  
 Write a function celsius\_to\_fahrenheit(celsius) that returns the Fahrenheit equivalent.

**Sample Input**:

celsius\_to\_fahrenheit(0) # Output: 32.0

celsius\_to\_fahrenheit(37) # Output: 98.6

celsius=int(input("Enter the temperature in celsius:"))

def celsius\_to\_fahrenheit(celsius):

fahrenheit=(celsius\*9/5)+32

print("The temperature in fahrenheit is:",fahrenheit)

celsius\_to\_fahrenheit(celsius)

**OUTPUT:**

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**PROGRAM 3:**

3.You're creating a grading system. Given a score (0–100), return a letter grade:

A: 90+   
B: 80–89   
C: 70–79  
D: 60–69  
F: below 60

Question:  
 Write a function get\_grade(score) that returns the letter grade.

Sample Input:

get\_grade(85) # Output: "B"

get\_grade(59) # Output: "F

score=int(input("Enter your score:"))

def get\_grade(score):

if(score>90):

print("Your grade is A")

elif(score>80):

print("Your grade is B")

elif(score>70):

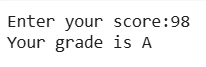
print("Your grade is C")

elif(score>60):

print("Your grade is D")

get\_grade(score)

**OUTPUT:**

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**PROGRAM 4:**

4.In a text editing app, users want a function that takes a sentence and reverses each word, keeping the word order the same.

Question:  
Write a function reverse\_words(sentence) that reverses the characters of each word.

Sample Input:

reverse\_words("hello world") # Output: "olleh dlrow"

reverse\_words("python is fun") # Output: "nohtyp si nuf"

sentence = input("Enter a sentence: ")

def reverse\_words(sentence):

words = sentence.split()

reversed\_words = []

for word in words:

reversed\_words.append(word[::-1])

reversed\_sentence = ' '.join(reversed\_words)

return reversed\_sentence

print(reverse\_words(sentence))

**OUTPUT:**

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**PROGRAM 5:**

1. **Shipping Cost Calculator** :A company charges shipping based on weight:

Up to 2kg: $5

2–5kg: $10

5kg and above: $15

Question:  
Write a function calculate\_shipping(weight) that returns the shipping cost.

Sample Input:

calculate\_shipping(1.5) # Output: 5

calculate\_shipping(3.2) # Output: 10

calculate\_shipping(7.0) # Output: 15

weight=int(input("Enter the weight:"))

def calculate\_shipping(weight):

if(weight<=2):

print("The shipping cost is $5")

elif(weight>2 and weight<=5):

print("The shipping cost is $10")

elif(weight>5):

print("The shipping cost is $15")

calculate\_shipping(weight)

**OUTPUT:**

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**PROGRAM 6:**

**6.Password Strength Checker**

Scenario: You're building a signup form. The password must be at least 8 characters long and contain at least one uppercase letter, one lowercase letter, and one digit.

Question:  
Write a function is\_strong\_password(password) that returns True if the password is strong, otherwise False.

Sample Input:

is\_strong\_password("Password123") # Output: True

password=input("enter your password:")

def strong\_password(password):

if len(password) < 8:

return False

has\_uppercase = False

has\_lowercase = False

has\_digit = False

for char in password:

if char.isupper():

has\_uppercase = True

elif char.islower():

has\_lowercase = True

elif char.isdigit():

has\_digit = True

if has\_uppercase and has\_lowercase and has\_digit:

return True

else:

return False

result = strong\_password(password)

if result:

print("Strong password")

else:

print("Weak password")

**OUTPUT:**

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| **DEPARTMENT OF CSE** | | |
| Program | 10 |  |
| Output | 5 |  |
| Viva-Voce | 5 |  |
| Total | 20 |  |