Institute of Computer Technology B. Tech Computer Science and Engineering

Subject: DS (2CSE302)

PRACTICAL-10

AIM: - Implement the scenario based on structure.

1. Jinali is working in COVID-19 vaccine centre. She wants to identify the number of people based on age group so they can approach them to get vaccinated as soon as possible. She wants to follow age group as per following:

Child: 0-16 Years

Young Child: 17-30 Years

Middle Aged Adults: 31-44 Years

Old Aged Adults: 45+ Years

Kindly follow the given scenario and provide appropriate solution in C (Take data for minimum 10 people)

i.e.

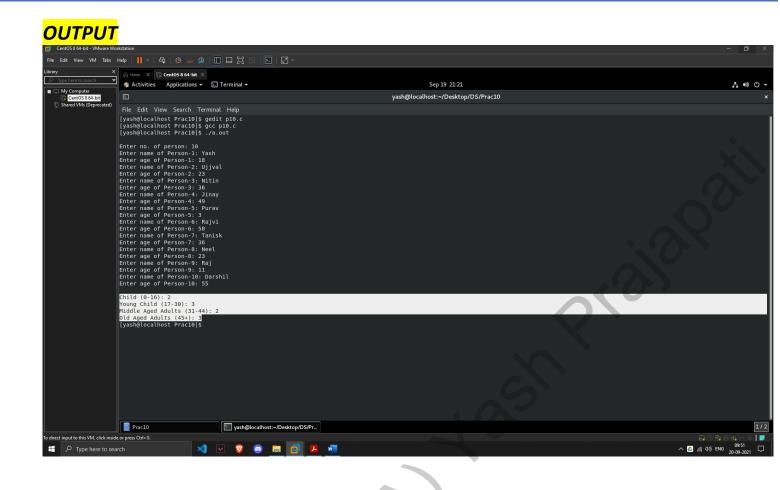
};

```
Enter no of person:5
Enter name of Person-1:Rikita
Enter age of Person-1:45
Enter name of Person-2:Trisha
Enter age of Person-2:12
Enter name of Person-3:Tanmay
Enter age of Person-3:33
Enter name of Person-4:Akshay
Enter age of Person-4:23
Enter name of Person-5:Parv
Enter age of Person-5:35
Child(0-16): 1
Young Child(17-30): 1
Middle Aged Adults(31-44): 2
Old Aged Adults(45+): 1
SOLUTION
#include <stdio.h>
struct Yash
     int age;
     char name[20];
```

DATA STRUCTURE (2CSE302)

```
int main()
{
      int num=0,age1=0,age2=0,age3=0,age4=0;
      printf("\nEnter no. of person: ");
      scanf("%d",&num);
  struct Yash y[num];
      for (int i = 0; i < num; i++)
             printf("Enter name of Person-%d: ",i+1);
             scanf("%s",y[i].name);
             printf("Enter age of Person-%d: ",i+1);
             scanf("%d",&y[i].age);
             if (y[i].age >= 0 && y[i].age <= 120){
               if (y[i].age >= 0 \&\& y[i].age <= 16){
                      age1++;
               }
                   else if(y[i].age >= 17 && y[i].age <= 30){
                      age2++;
               }
               else if(y[i].age >= 31 && y[i].age <= 44){
                      age3++;
               }
               else{
                      age4++
               }
             }
             else{
               printf("\nEnter Valid Age.");
      printf("\nChild (0-16): %d",age1);
      printf("\nYoung Child (17-30): %d",age2);
      printf("\nMiddle Aged Adults (31-44): %d",age3);
      printf("\nOld Aged Adults (45+): %d\n",age4);
}
```

DATA STRUCTURE (2CSE302) 2



DATA STRUCTURE (2CSE302)