Kratin Assessment

How can you help Sunita Sharma (65+ years old) to live a healthier and better life?

Identify one use case for elderly care (for the age group 65+) and create a working prototype to demonstrate your idea using technology known to you.

Solution:

There are many ways in which we can help elderly people of age 65+ to live a healthier and better life.

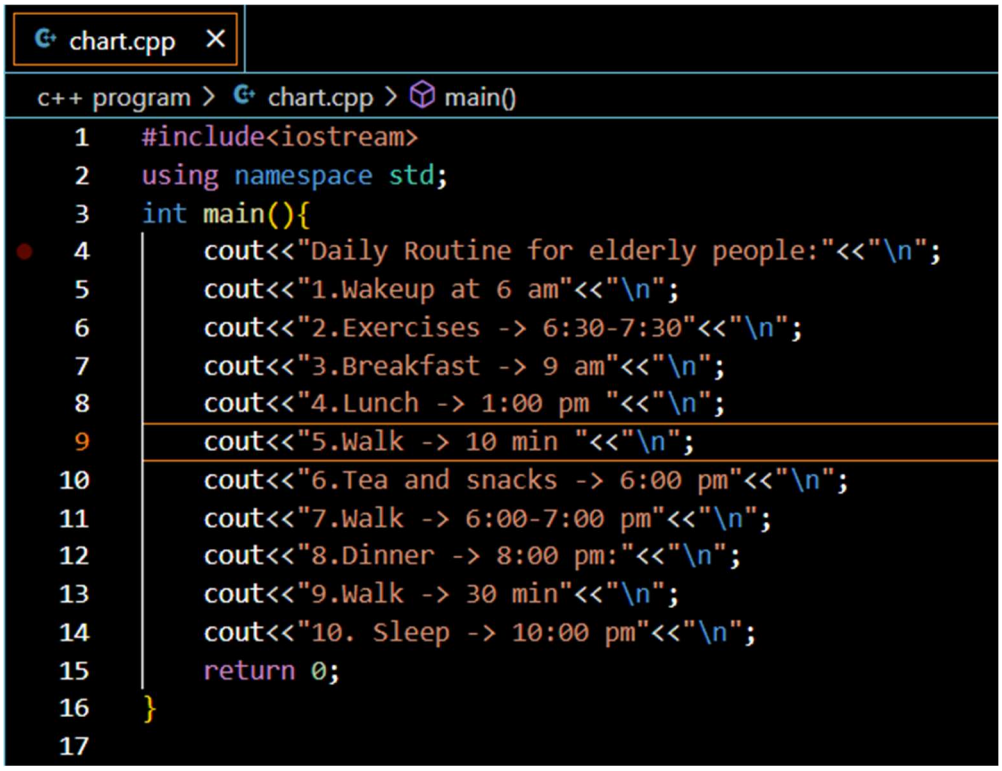
1. We can make an application for the elderly people that will connect the user to the doctor who will give them their daily schedule. Doctor provide a healthy chart that include all the activities which must be performed by the user to live a healthy life. We can add lots of features in the application.

2. We can add healthy food items in the chart so that the user get essential nutritions from the food. We can also add feature in the application that will calculate the calories in a food item and fat comes from it.We can create working prototype that calculates how much calories and fat from these calories can user consumes from these food.

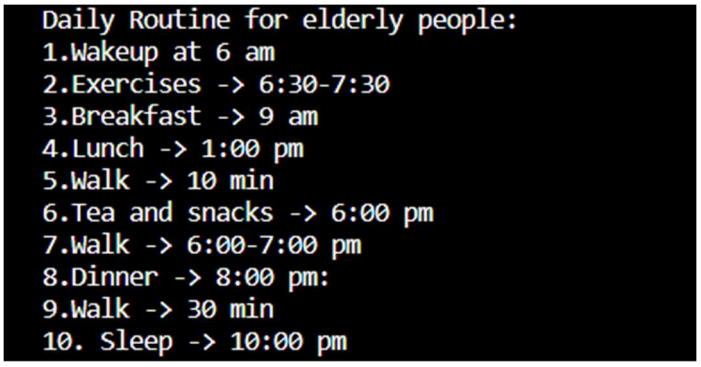
3. We can make the application more better by setting the alarm that will remind the user for their respective activities given in the healthy chart. We can make groups of elderly people in the application that will connect them to various people of their respective ages and can share similar lifestyles and share their problems.

   Below program shows the daily healthy chart for the elderly people to live healty and better life.

Screenshot of the code:



Output:



4. We can make these applications open source for doctors so that they can easily makes changes and add new activities in the applications that must be performed by the user.Also, doctors can treat their respective Patient through the application.

The program prototype is given below that calculates how many calories a person consumes from fat. If we know the calories in a food item and the grams of fat in it, we can calculate how many calories come from fat.

Program design :

Provide a input for entering a food name
Enter the food's name
An entry field for fat content is provided for the user
Weight of fat in grams
Input of the food's calories is required
Calculate the calories
Print the calorie content of the food item and the fat percentage

Screenshot of the code:

work.cpp

c++ program > work.cpp > main()

```cpp
#include<iostream>
using namespace std;
int main(){
    double  fat, fatper;
    int calorie;
    string foodname;
    cout<<"Enter the name of food : ";   //Enter the food name;
    cin>>foodname;
    cout<<"Enter the grams : ";  //Enter grams;
    cin>>fat;
    cout<<"Enter calorie : ";
    cin>>calorie;

    fatper = ( fat / (float)(calorie)) * 100;  //calculates fat percentage
    cout<<"Percentage of fat in "<<foodname<<" : "<<fatper<<'\n';

    if (fatper <= 30)
      cout<< foodname << ":- Healthy food item";  //This item is Heart Healty!
    else
      cout<< foodname  <<":- Non Healthy food item";
   return 0;
}
```

Output :

```
Enter the name of food : Egg
Enter the grams : 5
Enter calorie : 75
Percentage of fat in Egg : 6.66667
Egg:- Healthy food item
```

5. Above code its just a one way to solve the problems of elderly people to live better life. we can add lots of features in the application like tracking nearby hospital and mapping route which is shortest from the user to reach quickly to the hospital.

6. We can add feature which is used to measure heart beat rate and this ratings is transmit to the hospital monitoring server through internet. In case of any danger, hospital gets alert and can take precautionary actions.

7. We can provide videos like physical exercises, how make healthy juices and many more to the user.We can also provide funny videos which can help them relieving stress.There are many benefits of watching funny videos like control blood pressure,reduces risk of heart disease and ease of sleeplessness.

8. The above code is an example of the prescribed list,it is just a prototype of one of the features that the application will contained.