**Lab 11 Assignment**

**1)C++ to show details of the products**

**Algorithm:** In this program we have a class named furniture and give variables like quantity, price, and product. In the class we have created a function named details where user writes the information required and we are calculating total amount by price and quantity and in the main function, we have declared object for the class and print the output.

**Logic:**

#include<iostream>

using namespace std;

class Furniture{

public:

int quantities;

int price;

string products;

void details(){

int n;

cout<<"Enter Number of products : ";

cin>>n;

int i;

for(i=0;i<n;i++){

cout<<"Enter the Name of the Furniture : ";

cin>>products;

cout<<"Enter the Price of the Furniture : ";

cin>>price;

cout<<"Enter the Quantity of the Furniture : ";

cin>>quantities;

cout<<"Total cost is : "<<price\*quantities<<endl;

}

}

};

int main()

{

Furniture f;

f.details();

cout<<"Submitted by G.Hruthesh Reddy,Admn.No 20BCB7031"<<endl;

}

**Output:**

**Graphical user interface, text

Description automatically generated**

**2)C++ program to write a code for Hostel allotment**

**Algorithm:** In this program we are declaring an array and user will enter the no of students he wanted to write and then using for loop user will write the time taken by the user and we are using another for loop to check who is first and who is last and rooms will be allotted if the user has submitted first then he will get the first room and vice versa.

**Logic:**

#include<iostream>

using namespace std;

int main()

{

int a[100],s,i,temp;

cout<<"Enter the number of students : ";

cin>>s;

for(i=0;i<s;i++){

cout<<"Time taken(in seconds) by the Student Number "<<i+1<<" : ";

cin>>a[i];

}

int min=a[0];

for(i=0;i<s;i++){

for(int j=0;j<s;j++)

{

if(a[j]>a[i])

{

temp=a[i];

a[i]=a[j];

a[j]=temp;

}

}

}

for(i=0;i<5;i++){

cout<<"The Room No. "<<i+1<<" is alloted to Student who completed in : "<<a[i]<<" seconds "<<endl;

}

cout<<"Submitted by G.Hruthesh Reddy,Admn.No 20BCB7031"<<endl;

}

**Output:**

**Text

Description automatically generated**

**3)C++ program to compute stock of different brands of phones**

**Algorithm:** In this program we have a class named Mobile and give variables like purchases, sales, and brand. In the class we have created a function named details where user writes the information required and we are calculating the remaining stock available and in the main function, we have declared object for the class and print the output.

**Logic:**

#include<iostream>

using namespace std;

class Mobile{

public:

int purchase;

int sales;

string brand;

void details(){

int n;

cout<<"Enter Number of brands in showroom : ";

cin>>n;

int i;

for(i=0;i<n;i++){

cout<<"Enter the Brand of the Mobile phone : ";

cin>>brand;

cout<<"Enter the sold out stock of the phone : ";

cin>>purchase;

cout<<"Enter the stock of the phone : ";

cin>>sales;

int rstock;

rstock=sales-purchase;

cout<<"Remaining stock for "<<brand<<" is : "<<rstock<<endl;

}

}

};

int main()

{

Mobile m;

m.details();

cout<<"Submitted by G.Hruthesh Reddy,Admn.No 20BCB7031"<<endl;

}

**Output:**

**Text

Description automatically generated**

**Time of Submission:** 5-10-21,23:10