**“PROGRAMING TASKS”**

**LAB # 3**



**Spring 2020**

**CSE102L Computer Programming Lab**

Submitted by:  **Muhammad Ali**

Registration No. : **19PWCSE1801**

Class Section: A

“On my honor, as student of University of Engineering and Technology, I have neither given nor received unauthorized assistance on this academic work.”

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Submitted to:

**Engr. Abdullah Hamid**

(March 9, 2020)

Department of Computer Systems Engineering

University of Engineering and Technology, Peshawar

1. **Display the largest among three numbers using if else statement?**

#include<iostream>

using namespace std;

main()

{

int a,b;

cout<<"enter a num" ;

cin>>a;

if(a%2==0)

cout<<"even";

else

cout<<"odd";

return 0;

}

1. **Check the greater of two numbers using ternary operator?**

#include<iostream>

using namespace std;

main()

{

int I1,I2,s0,output;

I1=4;

I2=2;

s0=0;

output=(s0==0?I1:I2);

cout<<"greater number is :"<<output;

}

**3. Write a MarksSheet program, input 5 subject marks from user and show data on screen, with percentage, grade and average marks (Assume total marks = 100).**

#include<iostream>

using namespace std;

main(){

float a,b,c,ave,per,obt;

cout<<"ENTER PHYSICS MARKS\n";

cin>>a;

cout<<"ENTER MATHS MARKS\n";

cin>>b;

cout<<"ENTER COMPUTER MARKS\n";

cin>>c;

cout<<"TOTAL MARKS OUT OF 300 ="<<a+b+c<<endl;

obt=a+b+c;

if(obt>=200)

cout<<"GRADE :A\n";

else if (obt>=100)

cout<<"GRADE :B\n";

else

cout<<"GRATE :C\n";

cout<<"YOUR PERCENTAGE IS :"<<obt/300\*100;

return 0;

}

**4. Write a program that asks a number and test the number whether it is multiple of 5 or not, divisible by 7 but not by eleven. (all three conditions should match)**

#include<iostream>

using namespace std;

main()

{

int a;

cout<<"enter a number";

cin>> a;

if (a%5==0)

cout<<"num is multiple of 5";

else

{

cout<<"num is not multiple of 5";

}

**5. Check whether the entered character is vowel or consonant?**

#include<iostream>

using namespace std;

main()

{

char a;

cout<<"ENTER AN ALPHABET TO CHECK WHEATHER IT IS CONSONANT OR VOWEL:\n\_";

cin>>a;

if(a=='a'||a=='A'||a=='e'||a=='E'||a=='i'||a=='I'||a=='u'||a=='U'||a=='o'||a=='O')

{

cout<<a<<" is a vowel";

}

else{

cout<<a<<" is a consonant";

}

return 0;

}

**6. Write a program that takes the week day number as input from user and print the day name of week**

**E.g., Print Monday if week day number is equal to 1. Similarly, check condition for all 7 days and print the corresponding day name. Print an error message if an invalid number is entered.**

#include<iostream>

using namespace std;

main()

{

int day;

cout<<"ENTER DAY MUNBER IN WEEK\n";

cin>>day;

if(day==1)

{

cout<<"The name of the day is :"<<"MONDAY";

}

else if(day==2)

{

cout<<"The name of the day is :"<<"TUESDAY";

}

else if(day==3)

{

cout<<"The name of the day is :"<<"WEDNESDAY";

}

else if(day==4)

{

cout<<"The name of the day is :"<<"THURSDAY";

}

else if(day==5)

{

cout<<"The name of the day is :"<<"FRIDAY";

}

else if(day==6)

{

cout<<"The name of the day is :"<<"SATURDAY";

}

else if(day==7)

{

cout<<"The name of the day is :"<<"SUNDAY";

}

else

{

cout<<"WRONG NUMBER ENTER";

}

return 0;

}

**7. Write a C++ program to enter month number between (1-12) and print number of days in month.**

#include<iostream>

using namespace std;

main()

{

int m;

cout<<"ENTER MONTH MUNBER\n";

cin>>m;

if(m==1)

{

cout<<"The number of days in this month is :31";

}

else if (m==2)

{

cout<<"The number of days in this month is :29 ";

}

else if(m==3)

{

cout<<"The number of days in this month is:31 ";

}

else if(m==4)

{

cout<<"The number of days in this month is :30";

}

else if(m==5)

{

cout<<"The number of days in this month is :31";

}

else if(m==6)

{

cout<<"The number of days in this month is :30 ";

}

else if(m==7)

{

cout<<"The number of days in this month is :31 ";

}

else if(m==8)

{

cout<<"The number of days in this month is :31";

}

else if(m==9)

{

cout<<"The number of days in this month is :30 ";

}

else if(m==10)

{

cout<<"The number of days in this month is :31 ";

}

else if(m==11)

{

cout<<"The number of days in this month is :30 ";

}

else if(m==12)

{

cout<<"The number of days in this month is :31 ";

}

else

{

cout<<"invalid month number ";

}

return 0;

}

**10. Write a program to calculate and print the Electricity bill of a given customer. The customer id and unit consumed by the user should be taken from the keyboard and display the total amount to pay to the customer. The charges are as follow :**

|  |  |
| --- | --- |
| **Unit** | **Charge/unit** |
| **upto 199** | **@1.20** |
| **200 and above but less than 400** | **@1.50** |
| **400 and above but less than 600** | **@1.80** |
| **600 and above** | **@2.00** |

**If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the minimum bill should be of Rs. 100/-**

**Test Data:**

**1001**

**800**

**Expected Output:**

**Customer IDNO: 1001**

**Units Consumed: 800**

**Amount Charges @Rs. 2.00 per unit: 1600.00**

#include<iostream>

using namespace std;

main()

{

int a,u,z;

cout<<"ENTER YOUR ID :";

cin>>a;

cout<<"ENTER CONSUME UNIT :";

cin>>u;

if(u<=199)

{

cout<<"Amount charges @Rs.1.20 per unit :"<<u\*1.20;

}

else if (u>=200 and u<400)

{

cout<<"Amount charges @Rs.1.50 per unit :"<<u\*1.50;

}

else if (u>=400 and u<600)

{

cout<<"Amount charges @Rs.1.80 per unit :"<<u\*1.80<<endl;

cout<<"surcharge of 15% will be charge :"<<u\*1.80\*0.15<<endl;

cout<<"Net Amount will be paid by customer :"<<u\*2.00\*0.15+u\*2.00<<endl;

}

else

{

cout<<"Amount charges @Rs.2.00 per unit :"<<u\*2.00<<endl;

cout<<"surcharge of 15% will be charge :"<<u\*2.00\*0.15<<endl;

cout<<"Net Amount will be paid by customer :"<<u\*2.00\*0.15+u\*2.00<<endl;

}

return 0;

}