

CP Lab-03 Tasks

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Course: CP Lab

**Lab 03: Decision Statements in C++**

Task 1:

Write a program that reads input from user and return age in days/hours using if-else statement.

Write a program that reads input from user and return age in days/hours using switch statement.

Task 2:

## Write a program using Switch case statement to find weekday from number of day’s example: 1 = Monday etc.

Task 3:

## Write a C++ program to take input from user and find whether it’s even or odd.

Task 4:

Write a C++ menu driven program that allows a user to enter 3 numbers and then choose between findings smallest , largest , sum and average . Use else if statement to determine what action to take.

Task 5:

Write a C++ program to find if an integer is positive, negative or zero using nested if statements.

Note: All the tasks given are programmed by using do-while loops and are menu driven such that the user can select which task he/she wants to perform.

Code:

#include <iOStream>

using namespace std;

int main() {

char choiceMain, choiceOfTasks, choice1,choice2,choice3,choice4,choice5;

do {

cout << "Press 1 to perform Task 1" << endl <<

"Press 2 to perform Task 2" << endl <<

"Press 3 to perform Task 3" << endl <<

"Press 4 to perform Task 4" << endl <<

"Press 5 to perform Task 5" <<endl;

cin >> choiceOfTasks;

if (choiceOfTasks == '1') {

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task-01 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

do {

int age;

char choice;

cout << "Enter your age: ";

cin >> age;

cout << "Press d if you want to convert your age into days" << endl;

cout << "Press h if you want to convert your age into hours" << endl;

cin >> choice;

if (choice == 'd') {

age = age \* 365;

cout << "Age in days = " << age << " days"<<endl;

}

else if (choice == 'h') {

age = age \* 365 \* 24;

cout << "Age in hours = " << age << " hours"<<endl;

}

else {

cout << "Invalid input!";

}

cout << "Press y if you want to perform Task 1 again or any other key to exit"<<endl;

cin >> choice1;

} while (choice1 == 'y');

}

else if (choiceOfTasks == '2') {

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task-02 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

do {

int number;

cout << "Enter a number to find weekday: ";

cin >> number;

switch (number)

{

case 1:

cout << "Today is Monday" << endl;

break;

case 2:

cout << "Today is Tuesday" << endl;

break;

case 3:

cout << "Today is Wednesday" << endl;

break;

case 4:

cout << "Today is Thursday" << endl;

break;

case 5:

cout << "Today is Friday" << endl;

break;

case 6:

cout << "Today is Saturday" << endl;

break;

case 7:

cout << "Today is Sunday" << endl;

break;

default:

cout << "Invalid input!"<<endl;

break;

}

cout << "Press y if you want to perform Task 2 again or any other key to exit" << endl;

cin >> choice2;

} while (choice2 == 'y');

}

else if (choiceOfTasks == '3') {

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task-03 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

do {

int input;

cout << "Enter a number: "<<endl;

cin >> input;

if (input % 2 == 0) {

cout <<

"Input is Even"<<endl;

}

else {

cout <<

"Input is Odd"<<endl;

}

cout << "Press y if you want to perform Task 3 again or any other key to exit" << endl;

cin >> choice3;

} while (choice3 == 'y');

}

else if (choiceOfTasks == '4') {

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task-04 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

do {

float num1, num2, num3, sum, average;

char choice;

cout << "Enter first number: ";

cin >> num1;

cout << "Enter second number: ";

cin >> num2;

cout << "Enter third number: ";

cin >> num3;

cout << "Press 1 to find the smallest number" << endl;

cout << "Press 2 to find the largest number" << endl;

cout << "Press 3 to calculate the sum of the numbers" << endl;

cout << "Press 4 to calculate the average of the numbers" << endl;

cin >> choice;

if (choice == '1')

{

if (num1 < num2 && num1 < num3) {

cout << "Smallest number is " << num1<<endl;

}

else if (num2 < num1 && num2 < num3) {

cout << "Smallest number is " << num2<<endl;

}

else if (num3 < num1 && num3 < num2) {

cout << "Smallest number is " << num3<<endl;

}

}

else if (choice == '2') {

if (num1 > num2 && num1 > num3) {

cout << "largest number is " << num1<<endl;

}

else if (num2 > num1 && num2 > num3) {

cout << "largest number is " << num2<<endl;

}

else if (num3 > num1 && num3 > num2) {

cout << "largest number is " << num3<<endl;

}

}

else if (choice == '3') {

sum = num1 + num2 + num3;

cout << "Sum of the three numbers = " << sum<<endl;

}

else if (choice == '4') {

average = (num1 + num2 + num3) / 3;

cout << "Average of the three numbers = " << average<<endl;

}

else {

cout << "Invalid input!"<<endl;

}

cout << "Press y if you want to perform Task 5 again or any other key to exit ";

cin >> choice5;

} while (choice5 == 'y');

}

else if (choiceOfTasks == '5') {

cout << "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Task-05 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*" << endl;

do {

int input;

cout << "Enter a number:" << endl;

cin >> input;

if (input != 0) {

if (input > 0) {

cout << "Your input is a positive number!" << endl;

}

else {

cout << "Your input is a negative number!" << endl;

}

}

else {

cout << "Your input is zero!" << endl;

}

cout << "Press y if you want to perform Task 4 again or any other key to exit" << endl;

cin >> choice4;

} while (choice4 == 'y');

}

cout << "Press y if you want to see the main menu"<<endl;

cin >> choiceMain;

} while (choiceMain == 'y');

return 0;

}

Output:









