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Diploma Program in Information Technology

IT102

COMPUTER PROGRAMMING

2.C++ Implemention

Use an online compiler (like OnlineGDB or Online C++ compiler - programiz ) to translate the sample prgrams into working code.run each program and record the output .re-run the program to fully understand the code.

a).ifelse 1 cpp int main () {

#Include<iostream>

using namespace std;

int main () {

int num ;

cout <<” Enter a number : “;

cin >>num;

if (num<0)

cout <<num << “ is positive”;

else

cout<<num << “is negative” ;

return 0 ;

}

b). Ifelse 2 cpp

#include <iostream>

using namespace std;

int main() {

int code;

cout << "Enter a code: ";

cin >> code;

if (code =1) {

cout << "First year";

} else if (code = 2) {

cout << "Second year";

} else if (code = 3) {

cout << "Third year";

} else if (code = 4) {

cout << "Fourth year";

} else if (code = 5) {

cout << "Fifth year";

} else {

cout << "Sorry the number is not in choices";

}

return 0;

}

c).swithcase

#include <iostream>

using namespace std;

int main() {

int code;

std::cout << "Enter a code: ";

std::cin >> code;

switch (code) {

case 1:

std::cout << "First Year";

break;

case 2:

std::cout << "Second Year";

break;

case 3:

std::cout << "Third Year";

break;

case 4:

std::cout << "Fourth Year";

break;

case 5:

std::cout << "Fifth Year";

break;

default:

std::cout << "Sorry, the number is not in the choices";

}

return 0;

}

3.Exercises

1.Revise ifesle 1

a)’ ifelse 1 cpp

#include <iostream>

using namespace std;

int main() {

int number;

cout << "Enter a number: ";

cin >> number ;

cout << "The number is ";

if (number > 0) {

cout << "Positive";

} else if (number < 0) {

cout << "Negative";

} else {

cout << "Zero";

}

return 0;

}

2.Write a program that determines if the input letter is a vowel or consonant. The source code must be able to handle a capital or small input letter. Filename:**letter.cpp**

**#include <iostream>**

**using namespace std;**

**int main() {**

**char letter;**

**cout << "Enter a letter: ";**

**cin >> letter;**

**letter = tolower(letter);**

**if (isalpha(letter)) {**

**if (letter == 'a' || letter == 'e' || letter == 'i' || letter == 'o' || letter == 'u') {**

**cout << letter << " is a vowel." << endl;**

**} else {**

**cout << letter << " is a consonant." << endl;**

**}**

**} else {**

**cout << "Invalid input. Please enter a letter." << endl;**

**}**

**return 0;**

**}**

**3.Write a program that displays an equivalent color once an input letter matches its first character. The source code must be able to handle a capital or small input letter. Ex: R for RED; r for RED; b for BLUE, B for Blue (Maximum of 10 colors) Filename: colors.cpp**

#include <iostream>

using namespace std;

int main() {

char letter;

cout << "Enter a letter: ";

cin >> letter;

switch (letter) {

case 'B':

case 'b':

cout << "The color is BLUE" << endl;

break;

case 'Y':

case 'y':

cout << "The color is YELLOW" << endl;

break;

case 'P':

case 'p':

cout << "The color is PINK or PURPLE" << endl;

break;

case 'O':

case 'o':

cout << "The color is ORANGE" << endl;

break;

case 'K':

case 'k':

cout << "The color is BLACK" << endl;

break;

case 'G':

case 'g':

cout << "The color is GRAY or GREEN" << endl;

break;

case 'S':

case 's':

cout << "The color is SKY BLUE" << endl;

break;

case 'M':

case 'm':

cout << "The color is MAROON" << endl;

break;

case 'R':

case 'r':

cout << "The color is RED" << endl;

break;

default:

cout << "Color not found for this letter." << endl;

}

return 0;

}

QUIZ

1. JACK N POY

#iinclude <iostream>

using namespace std;

int main() {

char player1, player2;

cout << "Player 1, enter your choice (S for Scissors, R for Rock, P for Paper): ";

cin >> player1;

cout << "Player 2, enter your choice (S for Scissors, R for Rock, P for Paper): ";

cin >> player2;

if (player1 >= 'a' && player1 <= 'z') {

player1 = player1 - 32;

}

if (player2 >= 'a' && player2 <= 'z') {

player2 = player2 - 32;

}

cout << endl;

switch (player1) {

case 'S':

switch (player2) {

case 'S':

cout << "It's a tie!" << endl;

break;

case 'R':

cout << "Player 2 wins! Rock crush Scissors." << endl;

break;

case 'P':

cout << "Player 1 wins! Scissors cuts Paper." << endl;

break;

default:

cout << "Player 2's input is invalid. Please enter S, R, or P." << endl;

return 1;

}

break;

case 'R':

switch (player2) {

case 'S':

cout << "Player 1 wins! Rock crush Scissors." << endl;

break;

case 'R':

cout << "It's a tie!" << endl;

break;

case 'P':

cout << "Player 2 wins! Paper covers Rock." << endl;

break;

default:

cout << "Player 2's input is invalid. Please enter S, R, or P." << endl;

return 1;

}

break;

case 'P':

switch (player2) {

case 'S':

cout << "Player 2 wins! Scissors cuts Paper." << endl;

break;

case 'R':

cout << "Player 1 wins! Paper covers Rock." << endl;

break;

case 'P':

cout << "It's a tie!" << endl;

break;

default:

cout << "Player 2's input is invalid. Please enter S, R, or P." << endl;

return 1;

}

break;

default:

cout << "Player 1's input is invalid. Please enter S, R, or P." << endl;

return 1;

}

return 0;

}