#include <iostream>

using namespace std; Task 2

int main() {

    double num1,num2;

    char operation;

    cout << "Enter the first number: ";

    cin >> num1;

    cout << "Enter the operation (+, -, \*, /): ";

    cin >> operation;

    cout << "Enter the second number: ";

    cin >> num2;

    switch (operation) {

    case '+':

    cout << "Result: " << num1 + num2<<endl;

    break;

    case '-':

    cout << "Result: " << num1 - num2<<endl;

    break;

    case '\*':

    cout << "Result: " << num1 \* num2<<endl;

    break;

    case '/':

    if (num2 != 0) {

    cout << "Result: " << num1 / num2<<endl;

    } else {

    cout << "Error: Division by zero!"<<endl;

    }

    break;

    default:

    cout << "Invalid operation!" <<endl;

    }

    return 0;

}

Lab Task 1

#include<iostream>using namespace std;

int main(){

    int day;

    cout<<"enter day number(1-7):";

    switch(day){

        cin>>day;

        case'1';

        cout<<"monday";

 break;

    case'2';

    cout<<"tuesday";

    break;

    case'3';

    cout<<"wednesday";

    break;

    case'4';

    cout<<"thrusday";

    break;

    case'5';

    cout<<"friday";

    break;

    case'6';

    cout<<"saturday";

    break;

    case '7';

    cout<<"sunday";

    default;

    cout<<"invalid day number!";

    }

return 0;

}

Task 4

#include <iostream>

#include<string>

using namespace std;

int main() {

    char grade;

    cout<<"Enter a letter grade (A, B, C, D, F): ";

cin >> grade;

    switch (toupper(grade)) {

    case 'A':

    cout << "Excellent" <<endl;

    break;

    case 'B':

    cout << "Good" <<endl;

    break;

    case 'C':

    cout << "Fair" <<endl;

    break;

    case 'D':

    cout << "Poor" <<endl;

    break;

    case 'F':

    cout << "Failing" <<endl;

break;

    default:

    cout << "Invalid grade" <<endl;

    }

    return 0;

}

Task 3

#include <iostream>

#include <cctype>

using namespace std;

int main() {

char ch;

cout << "Enter an alphabet character: ";

cin >> ch;

ch = toupper(ch);

switch (ch) {

case 'A':

case 'E':

case 'I':

 case 'O':

 case 'U':

cout << (char)tolower(ch) << " is a vowel" <<endl;

break;

case 'B':

 case 'C':

 case 'D':

 case 'F':

 case 'G':

 case 'H':

 case 'J':

 case 'K':

 case 'L':

 case 'M':

 case 'N':

 case 'P':

 case 'Q':

 case 'R':

 case 'S':

 case 'T':

 case 'V':

 case 'W':

 case 'X':

 case 'Y':

 case 'Z':

cout << (char)tolower(ch) << " is a consonant" <<endl;

break;

default:

cout << "Invalid input. Please enter an alphabet character." <<endl;

}

return 0;

}

Task 5

#include<iostream>

using namespace std;

int main() {

    double balance = 0.0;

    int choice;

    double amount;

    while (true) {

    cout << "\nBank System Menu:" <<endl;

    cout << "1. Deposit" <<endl;

    cout << "2. Withdraw" <<endl;

    cout << "3. Check Balance" <<endl;

    cout << "4. Exit" << endl;

    cout << "Enter your choice: ";

    cin >> choice;

    switch (choice) {

    case 1:

    cout << "Enter amount to deposit: ";

    cin >> amount;

    balance += amount;

    cout << "Deposit successful. New balance: " << balance <<endl;

    break;

    case 2:

    cout << "Enter amount to withdraw: ";

    cin >> amount;

    if (amount > balance) {

    cout << "Insufficient funds." <<endl;

    } else {

    balance -= amount;

    cout << "Withdrawal successful. New balance: " << balance <<endl;

    }

    break;

 case 3:

    cout << "Current balance: " << balance <<endl;

    break;

    case 4:

    cout << "Exiting program. Goodbye!" <<endl;

    return 0;

    default:

    cout << "Invalid choice. Please try again." <<endl;

 }

    }

    return 0;

}

Task 6

#include <iostream>

#include <cctype>

using namespace std;

int main() {

char color;

    while (true) {

    cout << "Enter traffic light color (R/G/Y) or 'Q' to quit: ";

    cin >> color

    color = std::toupper(color);

    switch (color) {

 case 'R':

cout << "Stop" <<endl;

break;

case 'G':

cout << "Go" <<endl;

break;

case 'Y':

cout << "Slow down" <<endl;

break;

case 'Q':

cout << "Exiting program. Goodbye!" <<endl;

return 0;

default:

cout << "Invalid color.Enter R, G, Y or Q." <<endl;

        }

    }

    return 0;

}

Task 7

#include<iostream>

#include<string>

using namespace std;

int main() {

    int month;

cout << "Enter month (1-12): ";

cin >> month;

if (month >= 1 && month <= 12) {

switch (month) {

case 12:

case 1:

case 2:

cout << "Winter" <<endl;

break;

case 3:

case 4:

case 5:

cout << "Spring" <<endl;

break;

case 6:

case 7:

case 8:

cout << "Summer" <<endl;

break;

case 9:

case 10:

case 11:

cout << "Autumn" <<endl;

break;

        }

    } else {

cout << "Invalid month. Please enter 1-12." <<endl;

    }

    return 0;

}

Task 8

#include <iostream>

using namespace std;

int main() {

    int digit;

cout << "Enter a digit (0-9): ";

cin >> digit;

    if (digit >= 0 && digit <= 9) {

        switch (digit) {

            case 0:

cout << "Zero" <<endl;

break;

case 1:

cout << "One" <<endl;

                break;

            case 2:

cout << "Two" <<endl;

break;

case 3:

cout << "Three" <<endl;

break;

case 4:

cout << "Four" <<endl;

break;

case 5:

cout << "Five" <<endl;

break;

case 6:

cout << "Six" <<endl;

break;

case 7:

cout << "Seven" <<endl;

break;

case 8:

cout << "Eight" <<endl;

break;

case 9:

cout << "Nine" <<endl;

break;

}

    } else {

cout << "Invalid digit. Please enter 0-9." <<endl;

    }

    return 0;

}