**Лабораторна 5**

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**Абстракні та віртуальні класи**

**Код:**

#include <iostream>

using namespace std;

class Currency

{

public:

virtual double Exchange(double rubl) = 0;

};

class Dollar : public Currency

{

public:

virtual double Exchange(double rubl) override

{

double dollar = rubl \* 0.011;

cout << rubl << " рублей в долларах составляет: " << dollar << endl;

return dollar;

}

};

class Euro : public Currency

{

public:

virtual double Exchange(double rubl) override

{

double euro = rubl \* 0.010;

cout << rubl << " рублей в евро составляет: " << euro << endl;

return euro;

}

};

class Grivna : public Currency

{

public:

virtual double Exchange(double rubl) override

{

double grivna = rubl \* 0.39;

cout << rubl << " рублей в гривнах составляет: " << grivna << endl;

return grivna;

}

};

class ExchangeService

{

public:

double ConvertToCurrency(Currency\* currency, double rublAmount)

{

return currency->Exchange(rublAmount);

}

};

int main()

{

setlocale(LC\_ALL, "ru");

Dollar dollar;

Euro euro;

Grivna grivna;

double rublAmount = 3893;

ExchangeService exchangeService;

double dollars = exchangeService.ConvertToCurrency(&dollar, rublAmount);

double euros = exchangeService.ConvertToCurrency(&euro, rublAmount);

double grivnas = exchangeService.ConvertToCurrency(&grivna, rublAmount);

return 0;

}