**Task No 2**

**C++ Programming**

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**Code:**

**#include <iostream>**

**#include <vector>**

**#include <string>**

**class Contact {**

**public:**

**Contact(std::string name, std::string phone) : name(name), phone(phone) {}**

**std::string getName() const {**

**return name;**

**}**

**std::string getPhone() const {**

**return phone;**

**}**

**void setName(const std::string &newName) {**

**name = newName;**

**}**

**void setPhone(const std::string &newPhone) {**

**phone = newPhone;**

**}**

**private:**

**std::string name;**

**std::string phone;**

**};**

**void addContact(std::vector<Contact> &contacts) {**

**std::string name, phone;**

**std::cout << "Enter name: ";**

**std::cin >> name;**

**std::cout << "Enter phone number: ";**

**std::cin >> phone;**

**contacts.emplace\_back(name, phone);**

**std::cout << "Contact added successfully!" << std::endl;**

**}**

**void viewContacts(const std::vector<Contact> &contacts) {**

**if (contacts.empty()) {**

**std::cout << "No contacts to display." << std::endl;**

**return;**

**}**

**for (const auto &contact : contacts) {**

**std::cout << "Name: " << contact.getName() << ", Phone: " << contact.getPhone() << std::endl;**

**}**

**}**

**void deleteContact(std::vector<Contact> &contacts) {**

**std::string name;**

**std::cout << "Enter the name of the contact to delete: ";**

**std::cin >> name;**

**for (auto it = contacts.begin(); it != contacts.end(); ++it) {**

**if (it->getName() == name) {**

**contacts.erase(it);**

**std::cout << "Contact deleted successfully!" << std::endl;**

**return;**

**}**

**}**

**std::cout << "Contact not found." << std::endl;**

**}**

**void showMenu() {**

**std::cout << "\nContact Management System\n";**

**std::cout << "1. Add Contact\n";**

**std::cout << "2. View Contacts\n";**

**std::cout << "3. Delete Contact\n";**

**std::cout << "4. Exit\n";**

**std::cout << "Enter your choice: ";**

**}**

**int main() {**

**std::vector<Contact> contacts;**

**int choice;**

**while (true) {**

**showMenu();**

**std::cin >> choice;**

**switch (choice) {**

**case 1:**

**addContact(contacts);**

**break;**

**case 2:**

**viewContacts(contacts);**

**break;**

**case 3:**

**deleteContact(contacts);**

**break;**

**case 4:**

**std::cout << "Exiting the program..." << std::endl;**

**return 0;**

**default:**

**std::cout << "Invalid choice. Please try again." << std::endl;**

**}**

**}**

**return 0;**

**}**

**Output:**











