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|  | **CP**  **BSCS 1-A**  **Department of Computer Science**  **Bahria University, Lahore Campus** |

**Assignment: [1]**

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| **Evaluation of CLO** | **Question Number** | **Marks** | **Obtained Marks** |
| **CLO1: Demonstrate the understanding of the basic concepts of programming** | 1,2,3,4,5 | 1,2,1,4,2 |  |
|  |  |  |
| **Total Marks** | | **10** |  |

***Question No.1***

***Project Submission :***

*#include <iostream>*

*#include <limits>*

*#include <cstdlib>*

*#include <windows.h>*

*#include <string>*

*using namespace std;*

*void diaplay\_main\_menu();*

*void diaplay\_admin\_menu();*

*void list\_all\_entities();*

*void create\_entity();*

*void delete\_entity();*

*int check\_admin\_password();*

*void Edit\_entity();*

*int avoid\_entity\_match();*

*int avoid\_Voter\_match();*

*void cast\_vote();*

*void voting\_termination();*

*int input;*

*string password = "admin12345";*

*string input\_password;*

*int EntityList[10] = {0};*

*string EntityName[10] = {"N","N","N","N","N","N","N","N","N","N"};*

*string EntityProperty1[10] = {"N","N","N","N","N","N","N","N","N","N"};*

*string EntityProperty2[10] = {"N","N","N","N","N","N","N","N","N","N"};*

*int VoterList[100] = {0};*

*string VoterName[100] = {""};*

*string VoterCNIC[100] = {""};*

*string VoterSelection[100] = {""};*

*int main() {*

*diaplay\_main\_menu();*

*return 0;*

*}*

*void diaplay\_main\_menu() {*

*system("cls");*

*cout << "Smart Voting System\n\n";*

*cout << "\tMain Menu\n";*

*cout << "Enter 1 to go to Admin\n";*

*cout << "Enter 2 to cast Vote\n";*

*cout << "Enter 3 to Exit\n";*

*cin >> input;*

*cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // flush newline*

*if(input == 1){*

*if(check\_admin\_password() == 1){*

*diaplay\_admin\_menu();*

*}*

*else if(check\_admin\_password() == 0){*

*cout << "Wrong Password!" << endl;*

*Sleep(1500);*

*diaplay\_main\_menu();*

*}*

*}*

*else if(input == 2){*

*cast\_vote();*

*}*

*else if(input == 3){*

*exit(0); // Exit cleanly*

*}*

*else {*

*cout << "Wrong Input!" << endl;*

*Sleep(1500);*

*diaplay\_main\_menu();*

*}*

*}*

*int check\_admin\_password() {*

*system("cls");*

*cout << "Enter Admin Password: ";*

*getline(cin, input\_password);*

*if(input\_password == password){*

*return 01;*

*}*

*else {*

*return 0;*

*}*

*}*

*void diaplay\_admin\_menu() {*

*system("cls");*

*cout << "Smart Voting System\n\n";*

*cout << "\tAdmin Menu\n";*

*cout << "Enter 1 to create Entity\n";*

*cout << "Enter 2 to Edit Entity\n";*

*cout << "Enter 3 to Delete Entity\n";*

*cout << "Enter 4 to terminate Voting\n";*

*cout << "Enter 5 to go to Main Menu\n";*

*cin >> input;*

*cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // flush newline*

*if(input == 1){*

*create\_entity();*

*}*

*else if(input == 2){*

*Edit\_entity();*

*}*

*else if(input == 3){*

*delete\_entity();*

*}*

*else if(input == 4){*

*voting\_termination();*

*}*

*else if(input == 5){*

*diaplay\_main\_menu();*

*}*

*else {*

*cout << "Wrong Input!" << endl;*

*Sleep(1500);*

*diaplay\_admin\_menu();*

*}*

*}*

*void delete\_entity() {*

*list\_all\_entities();*

*cout << "\nEnter serial number of entity to be delated.\nor 0 to go back: ";*

*cin >> input;*

*cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // flush newline*

*if(input == 0){*

*diaplay\_admin\_menu();*

*}*

*else if(input == 1 || input == 2 || input == 3 || input == 4 || input == 5 || input == 6 || input == 7 || input == 8 || input == 9 || input == 10){*

*EntityName[input-1] = "";*

*EntityProperty1[input-1] = "";*

*EntityProperty2[input-1] = "";*

*EntityList[input-1] = 0;*

*cout << "Entity Deleted!" << endl;*

*Sleep(1500);*

*diaplay\_admin\_menu();*

*}*

*else {*

*cout << "Wrong Input!" << endl;*

*Sleep(1500);*

*diaplay\_admin\_menu();*

*}*

*}*

*void list\_all\_entities() {*

*system("cls");*

*cout << "\tEntity List\n\n";*

*bool found = false;*

*for(int i = 0; i < 10; i++) {*

*if(EntityList[i] == 1) {*

*cout << i + 1 << ". " << EntityName[i] << endl;*

*found = true;*

*}*

*}*

*if(!found) {*

*cout << "No entities available.\n";*

*}*

*// cout << "\nPress Enter to return to menu...";*

*// cin.get();*

*// diaplay\_main\_menu();*

*}*

*void create\_entity() {*

*system("cls");*

*for (int i = 0; i < 10; i++) {*

*if (EntityList[i] == 0) {*

*cout << "Enter Name of Entity: ";*

*getline(cin, EntityName[i]);*

*cout << "Enter Property 1: ";*

*getline(cin, EntityProperty1[i]);*

*cout << "Enter Property 2: ";*

*getline(cin, EntityProperty2[i]);*

*EntityList[i] = 1;*

*cout << "Entity Created Successfully!\n";*

*Sleep(1500);*

*break; // Only one entity created per call*

*}*

*}*

*diaplay\_admin\_menu();*

*}*

*void Edit\_entity() {*

*list\_all\_entities();*

*cout << "\nEnter serial number of entity to be Edited.\nor 0 to go back: ";*

*cin >> input;*

*cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // flush newline*

*if(input == 0){*

*diaplay\_admin\_menu();*

*}*

*else if(input == 1 || input == 2 || input == 3 || input == 4 || input == 5 || input == 6 || input == 7 || input == 8 || input == 9 || input == 10){*

*system("cls");*

*cout << "Name: "<<EntityName[input-1] << endl;*

*cout << "EntityProperty1: "<<EntityProperty1[input-1] << endl;*

*cout << "EntityProperty2: "<<EntityProperty2[input-1] << endl;*

*cout << "Enter New Name: ";*

*getline(cin, EntityName[input-1]);*

*cout << "Enter New EntityProperty1: ";*

*getline(cin, EntityProperty1[input-1]);*

*cout << "Enter New EntityProperty2: ";*

*getline(cin, EntityProperty2[input-1]);*

*cout << "Entity Edited Successfully!\n";*

*Sleep(1500);*

*diaplay\_admin\_menu();*

*}*

*else {*

*cout << "Wrong Input!" << endl;*

*Sleep(1500);*

*diaplay\_admin\_menu();*

*}*

*}*

*void cast\_vote() {*

*list\_all\_entities();*

*cout << "\nEnter serial number of entity to be Voted.\nor 0 to go back: ";*

*cin >> input;*

*cin.ignore(numeric\_limits<streamsize>::max(), '\n'); // flush newline*

*if(input == 0){*

*diaplay\_admin\_menu();*

*}*

*else if(input == 1 || input == 2 || input == 3 || input == 4 || input == 5 || input == 6 || input == 7 || input == 8 || input == 9 || input == 10){*

*for(int i = 0; i < 100; i++) {*

*if(VoterList[i] == 0) {*

*VoterSelection[i] = EntityName[input-1];*

*cout << "Enter your Name: ";*

*getline(cin, VoterName[i]);*

*cout << "Enter your CNIC: ";*

*getline(cin, VoterName[i]);*

*VoterList[i] = 1;*

*break;*

*}*

*}*

*cout << "Vote Casted Successfully!" << endl;*

*Sleep(1500);*

*diaplay\_main\_menu();*

*}*

*else {*

*cout << "Wrong Input!" << endl;*

*Sleep(1500);*

*diaplay\_main\_menu();*

*}*

*}*

*void voting\_termination() {*

*system("cls");*

*cout << "\tVoting Terminationt\n\n";*

*cout <<" " << "Entity Name"<<"\t" << "No Of Votes" << endl;*

*for(int i = 0; i < 10; i++) {*

*if(EntityList[i] == 1){*

*int NoOfVotes = 0;*

*for(int j = 0; j < 100; j++) {*

*if(VoterSelection[j] == EntityName[i]){ NoOfVotes++;}*

*}*

*cout << i + 1 << ". " << EntityName[i]<<"\t" << NoOfVotes << endl;*

*}*

*}*

*}*

***THANK YOU***