**Lab Task-7**

**Instructions: Please read carefully**

* Please rename this file as only your ID number **(e.g. 20-\*\*\*\*\*-3.doc or 20-\*\*\*\*\*-3.pdf).**
* Submit the file before **11:59 PM on 29/11/2020** in VUES section labeled **Lab task 7. If you cannot complete the full task, do not worry. Just upload what you have completed.**

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| **Question No.1**  Create a class called test. The class will contain a private variable x. Add appropriate public members functions also known as methods to set and get values for x. |
| **Your code here:**  #include <iostream>  using namespace std;  class test  {  private:  int x;  public:  void setX (int a) {x=a;}  int getX () {return x;}  void print () {cout<<"Value of Variable: "<<x<<endl<<endl;}  };  int main()  {  test ob;  ob.setX(12345);  ob.print();  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.2**  Create a class called test. The class will contain two private variable x and y. Add appropriate member functions also known as methods to set and get values for x and y. |
| **Your code here:**  #include <iostream>  using namespace std;  class test  {  private:  int x;  int y;  public:  void setX(int a){x=a;}  int getX(){return x;}  void setY(int a){y=a;}  int getY(){return y;}  void print(){cout<<"X: "<<x<<endl<<"Y: "<<y;}  } ;  int main()  {  test ob;  ob.setX(123321);  ob.setY(98890);  ob.print();  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.3**  Create a class called test. The class will contain three private variable x, y and z. Add one method to set values for x, y and z. Also add another method to print the values of x, y and z. |
| **Your code here:**  #include <iostream>  using namespace std;  class test  { private:  int x, y, z;  public:  void setter (int a, int b, int c)  {  x=a;  y=b;  z=c;  }  void show()  {  cout << "X: " << x << endl<<"Y: "<<y<<endl<<"Z: "<<z<<endl;  }  };  int main()  {  test ob;  ob.setter(11,22,33);  ob.show();  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.4**  Create a class called employee that will be able to store and show the following information for an employee –  Name, age, NID and salary.  . |
| **Your code here:**  #include <iostream>  using namespace std;  class employee  {  private:  string nam;  int age;  string nid;  int sal;  public:  void setname(string a) { nam=a;}  string getname() {return nam;}  void setage (int b) {age=b;}  int getage () {return age;}  void setnid (string c) {nid=c;}  string getnid () {return nid;}  void setsal (int d) {sal=d;}  int getsal() {return sal;}  void prnt() {cout<<"Name: "<<nam<<endl<<"Age: "<<age<<endl<<"NID No.: "<<nid<<endl<<"Salary: "<<sal;}  };  int main()  {  employee ob;  ob.setname("Akash");  ob.setage (21);  ob.setnid ("\*\*\*\*\*\*\*\*\*\*\*\*\*\*");  ob.setsal(0);  ob.prnt();  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question No.5**  Create a class as depicted by the table given below for a class named student   |  |  | | --- | --- | | Member Data | | | Private | name | | age | | date of birth | | cgpa | | no. of courses taken |   .   |  |  | | --- | --- | | Member methods | | | Public | setName(string a) | | string getName() | | setAge(string a) | | string getAge() | | setDob(string a) | | string getDob() | | setCgpa(string a) | | string getCgpa() | | setCourseTaken(string a) | | string getCourseTaken() | | print() | |
| **Your code here:** |
| **Your whole Screenshot here: (Console Output):**  #include <iostream>  using namespace std;  class student  {  private:  string Name;  int Age;  string Dob;  double Cgpa;  int noofcoursetaken;  public:  void setName(string p){Name=p;}  string getName(){return Name;}  void setAge(int p){Age=p;}  int getAge(){return Age;}  void setDob(string p){Dob=p;}  string getDob(){return Dob;}  void setCgpa(double p){Cgpa=p;}  double getCgpa(){return Cgpa;}  void setnoofcoursetaken(int p){noofcoursetaken=p;}  int getnoofcoursetaken(){return noofcoursetaken;}  void print(){cout<<"Name: "<<Name<<endl<<"Age: "<<Age<<endl<<"Date of birth: "<<Dob<<endl<<"CGPA: "<<Cgpa<<endl<<"Number of course taken: "<<noofcoursetaken<<endl<<endl;}  };  int main()  {  student ob;  ob.setName("Akash");  ob.setAge(21);  ob.setDob("18-11-2001");  ob.setCgpa(10.00);  ob.setnoofcoursetaken(5);  ob.print();  } |

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| **Question No.6**  Add an array to the code of question no.5 to store the information of the individual students. Then add appropriate information to show information for individual student using id and show information of all the students.  . |
| **Your code here:**  #include <iostream>  using namespace std;  class student  {  private:  string name;  int age;  string dateOfBirth;  float cgpa;  int coursesTaken;  string id;  public:  void setName(string a){name=a;}  string getName(){return name;}  void setAge(int a){age=a;}  int getAge(){return age;}  void setDob(string a){dateOfBirth=a;}  string getDob(){return dateOfBirth;}  void setCgpa(float a){cgpa=a;}  float getCgpa(){return cgpa;}  void setCourseTaken(int a){coursesTaken=a;}  int getCourseTaken(){return coursesTaken;}  void setId(string a){id=a;}  string getId(){return id;}  void print(){  cout << "Name: " << getName() <<endl<< "Age : " << getAge() << endl << "Date of birth: " << getDob() << endl << "CGPA : " << getCgpa() << endl << "Courses Taken: " << getCourseTaken() << endl<< endl << endl;  }  };  int main()  {  student ob[10];  ob[0].setName("Asmaul Akash");  ob[0].setAge(21);  ob[0].setCgpa(9.00);  ob[0].setDob("18-11-2001");  ob[0].setCourseTaken(5);  ob[0].setId("111");  ob[1].setName("Avro Alen");  ob[1].setAge(25);  ob[1].setCgpa(13.62);  ob[1].setDob("10-05-1978");  ob[1].setCourseTaken(16);  ob[1].setId("112");  ob[2].setName("Rubyea Zannat");  ob[2].setAge(26);  ob[2].setCgpa(7.00);  ob[2].setDob("10/01/1959");  ob[2].setCourseTaken(16);  ob[2].setId("113");  for(int i = 0;; i++){  cout << "Available id: 111, 112, 113" << "(type 'exit' to exit)" << endl;  string s;  getline(cin,s);  for(int i=0; i<4; i++){  if(ob[i].getId()==s){  ob[i].print();  }  }  if(s=="exit") break;  else {cout<<"Wrong ID";} break;  }  } |
| **Your whole Screenshot here: (Console Output):** |