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“ONLINE QUIZ TAKING SYSTEM”

1. PROJECT:

- Your project is an online quiz taking system, in this you make different entities (Classes, Functions, derived classes etc.) of the program like
- One person can take an online quiz by making a login first, can start and pause in between (but a timer should run for 20 mins)
- Out of a list of question, random 20 questions will be chosen and presented to the user.
- Answers should be compared with the answers list for all the question and marks should be given on the basis of given criteria
- +1 for every correct answer ii. -.25 for every wrong answer
- At the end of the quiz you should be able to see the result and get a pass and fail mark.

2. INTRODUCTION:

This project is about taking an online quiz from the user. The system is made using the classes to encapsulate the information, objects to instantiate the classes, inheritance to implement generalization and specializations, polymorphism by using some virtual functions and files to keep the records of the user.

3. EXPLANATION:

A user can give the quiz by signing up to create account by entering his username and password. After that a user logs in to his account by entering is username and password. Then he is asked if he wants to take the quiz. If the user enters No then the system exits and if the user enters Yes then he is asked to enter his name and his roll number. After that user is asked to press 1 to start the quiz. Then random 20 questions are shown to the user one by one. Each question has multiple four choices. User is asked to enter his answer as 1, 2, 3 or 4. Then the answer is matched with the answer key. If the answer is correct then “Correct!” is displayed and 1 is incremented in the user’s score. But if the answer is wrong then “Wrong!” along with correct answer is displayed and -0.25 is deducted from the user’s score. After attempting all the questions, user’s performance is displayed containing the user’s name, his roll number, his total score out of 20 and a PASS/FAIL mark based on passing criteria. The record of the users logging in and attempting the quiz is stored on files. The record is updated each time a user attempts the quiz.

4. PROGRAM CODE:

```
// new project.cpp : Defines the entry point for the console application.
//
#include<iostream>
#include<ctime>
#include<string>
#include<conio.h>
```

```

#include<fstream>
#include<windows.h>
using namespace std;
int guess=0;
int total;
string name;
int roll;
int t=0;
char s{ 100};
fstream myFile;

class Quiz
{
protected:
    string Question_Text;
    string Ans1;
    string Ans2;
    string Ans3;
    string Ans4;
    int Correct_Answer;
    int Question_Score;
public:
    void setValues(string, string, string, string, string, int, int);
    void askQuestion();
    void inputdata();
    void store();
    void timer();
    virtual void print(){ }
};

void timer()
{
    int counter=100;
    Sleep(10);
    while(counter>=1)
    {cout<<"\r Time Remaining: "<<counter<<flush;
    Sleep(10);
    counter--;
    }
}

void Quiz:: inputdata()
{
    cout<<"Enter your name: ";
    cin>>name;
    cout<<endl;
}

```

```

        cout<<endl;
        cout<<"Enter your roll number: ";
        cin>>roll;
        cout<<endl;
    }

void Quiz::store()
{
    myFile.open("D: test.txt",ios::app);

    if(myFile.is_open())
    {
        myFile<<"STUBENT's DATA:\n"<<endl;
        myFile<<"Students Name: "<<name<<endl;
        myFile<<"Roll Number: "<<roll<<endl;
        myFile<<"Marks: "<<total<<"/20\n"<<endl;
        myFile.close();
    }
    else
        cout<<"file not found"<<endl;
}

void Quiz::setValues(string q, string a1,string a2, string a3,string a4, int ca, int pa)
{
    Question_Text = q;
    Ans1 = a1;
    Ans2 = a2;
    Ans3 = a3;
    Ans4 = a4;
    Correct_Answer = ca;
    Question_Score = pa;
}

void Quiz:: askQuestion()
{
    cout << endl;
    cout << Question_Text << endl;
    cout<<endl;
    cout << "1. " << Ans1 << endl;
    cout << "2. " << Ans2 << endl;
    cout << "3. " << Ans3 << endl;
    cout << "4. " << Ans4 << endl;
    cout << endl;
    cout << "your answer?(in number)\n";
    cin >> guess;
    if (guess == Correct_Answer)

```

```

{
    cout << endl;
    cout << "Correct !" << endl;
    total=total+1;
    cout << "Score = " <<total<< " out of " << Question_Score<< "!" << endl;
    cout << endl;
}
else
{
    cout << endl;
    total=total-25/100;
    cout << "Wrong !" << endl;
    cout << "Score = " <<total<< " out of " << Question_Score<< "!" << endl;
    cout << "Correct answer = " << Correct_Answer<< "." << endl;
    cout << endl;
}
}

class Result: public Quiz
{
public:
    void print()
    {
        system("CLS");
        cout<<"\n\n.....Here Is Your Performance ..... \n\n"<<endl;
        cout<<"Student's name: "<<name<<endl;
        cout<<"Roll Number: "<<roll<<endl;
        cout<<endl;
        cout<<" Your marks are "<<total<<" out of 20\n"<<endl;
        if (total >=12)
        {
            cout<<"Congrats!! You have PASSED the
quiz.\n"<<endl;

        }
        else
        {
            cout<<"Alas!! You have FAILED the quiz."<<endl;
            cout<<"Better luck next time!"<<endl;
            cout<<endl;
        }
    }
};

int main()
{

```

```

        cout<<"\n\n\t\t Online Quiz Management System"<<endl;
        string username,password;
        cout<<"\n\n\n\t\t*****Signup*****"<<endl;
        cout<<"\t\tEnter new username: ";
        getline(cin,username);
        cout<<"\t\tEnter new password: ";
        getline(cin,password);
        cout<<"\t\tYour new id is creating please wait";
        for(int i=0;i<6;i++)
        {
            cout<<".";
            Sleep(500);
        }
        cout<<"\n\t\tYour id created successfully";
        Sleep(2000);
        start:
        system("CLS");
        string usrn,pswd;
        cout<<"\n\n\t\t Online Quiz Management System"<<endl;
        cout<<"\n\n\n\t\t LOGIN"<<endl;
        cout<<"\t\tEnter username: ";
        getline(cin,usrn);
        cout<<"\t\tEnter password: ";
        getline(cin,pswd);
        if(usrn==username&&pswd==password)
        {
            system("CLS");
            Quiz*q,q1,q2,q3,q4,q5,q6,q7,q8,q9,q10;
            Quiz q11,q12,q13,q14,q15,q16,q17,q18,q19,q20,qq,qqq;
            string Respond;
            cout << "Are you ready to take the quiz? yes/no" << endl;
            cin >> Respond;
            if (Respond == "yes")
        {
            cout << endl;
            cout << "Good Luck!" << endl;
            Sleep(3000);
            system("CLS");
        }
        else
        {
            cout << "Okay Good Bye!\n" << endl;
            Sleep(1000);
            system("CLS");
            exit(0);
        }
    }

```

```

    }
    qq.inputdata();
    char ch;
    cout<<"Press 1 to start the quiz.."<<endl;
    cin>>ch;
    timer();
    system("CLS");
    q1.setValues("1. Which fruit is associated with Isaac
Newton?", "apple", "mango", "orange", "banana", 1, 20);
    q2.setValues("2. What is the boiling point temperature
(water)?", "50", "100", "150", "200", 2, 20);
    q3.setValues("3. How many letters are there in Urdu
alphabets?", "35", "36", "37", "38", 3, 20);
    q4.setValues("4. If 5x plus 32 equals 4 minus 2x what is the value of x
?", "5", "2", "-1", "-4", 4, 20);
    q5.setValues("5. On which planet the life
exists?", "earth", "mars", "jupiter", "saturn", 1, 20);
    q6.setValues("6. Which is the nearest star to the
earth?", "moon", "sun", "venus", "mercury", 2, 20);
    q7.setValues("7. Which is the largest planet in solar
sytem?", "earth", "venus", "jupiter", "mars", 3, 20);
    q8.setValues("8. Which continent is bounded by water bodies on three
sides?", "africa", "australia", "asia", "europe", 4, 20);
    q9.setValues("9. Which is ideal for cultivation of crops?", "river
valleys", "plains", "mountains", "glaciers", 1, 20);
    q10.setValues("10. Rivers of ice?", "ice sheets", "glaciers", "ice cubes", "ice
burgs", 2, 20);
    q11.setValues("11. What are most useful area for human
habitation?", "glaciers", "mountains", "plains", "valleys", 3, 20);
    q12.setValues("12. The salt range is
in?", "india", "america", "sirilanka", "pakistan", 4, 20);
    q13.setValues("13. The river Yangtze flows
in?", "China", "russia", "india", "america", 1, 20);
    q14.setValues("14. Where did nuns and monks live?", "in houses", "in
caves", "in nuts", "none of these", 2, 20);
    q15.setValues("15. Which lies to the left of -24?", "-23", "=20", "-25", "-
19", 3, 20);
    q16.setValues("16. 39-50 is?", "10", "-10", "11", "-11", 4, 20);
    q17.setValues("17. Sum of a negative and a positive number is?", "either
positive or negative", "positive", "negative", "none", 1, 20);
    q18.setValues("18. Sum of positive numbers is
always?", "negative", "positive", "zero", "none", 2, 20);
    q19.setValues("19. What is additive inverse of -1?", "0", "-1", "1", "-2", 3, 20);
    q20.setValues("20. Sum of -10, -5 and 12 is?", "5", "3", "-4", "-3", 4, 20);
    q1.askQuestion();
    q2.askQuestion();

```

```

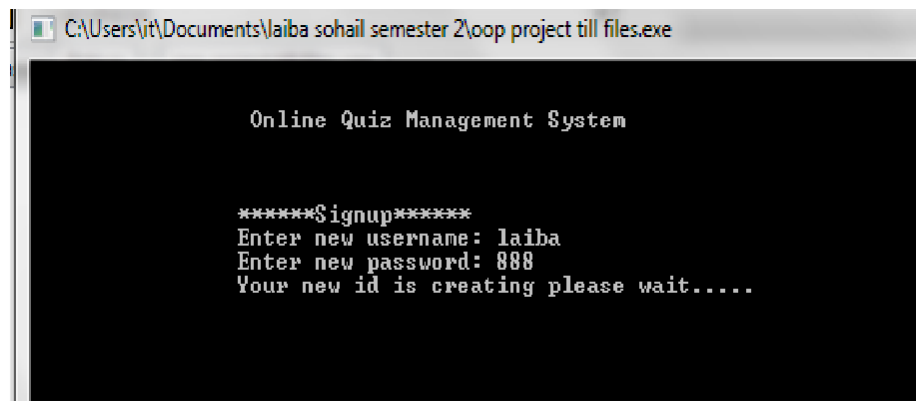
        q3.askQuestion();
        q4.askQuestion();
        q5.askQuestion();
        q6.askQuestion();
        q7.askQuestion();
        q8.askQuestion();
        q9.askQuestion();
        q10.askQuestion();
        q11.askQuestion();
        q12.askQuestion();
        q13.askQuestion();
        q14.askQuestion();
        q15.askQuestion();
        q16.askQuestion();
        q17.askQuestion();
        q18.askQuestion();
        q19.askQuestion();
        q20.askQuestion();

        Result r;
        q=&r;
        q->print();
        qqg.store();

    }
    else if(usrn!=username)
    {
        cout<<"\t\t\Invalid username please try again";
        Sleep(3000);
        goto start;
    }
    else if(pswd!=password)
    {
        cout<<"\t\t\Invalid password please try again";
        Sleep(3000);
        goto start;
    }
    else{
        cout<<"\t\t\Invalid username and password";
        Sleep(3000);
        goto start;
    }
    system("pause");
    return 0;
}

```

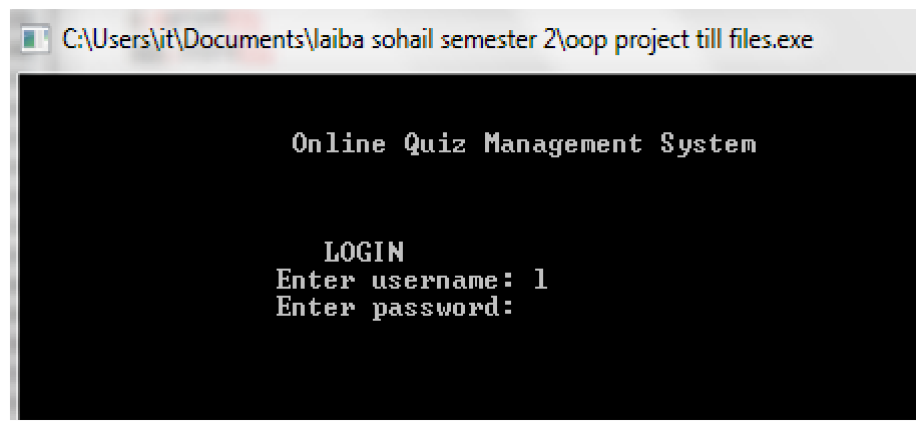

5. OUTPUT:



```
C:\Users\it\Documents\laiba sohail semester 2\oop project till files.exe

Online Quiz Management System

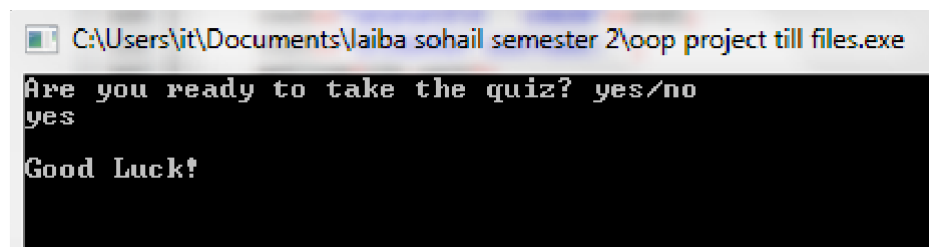
*****Signup*****
Enter new username: laiba
Enter new password: 888
Your new id is creating please wait.....
```



```
C:\Users\it\Documents\laiba sohail semester 2\oop project till files.exe

Online Quiz Management System

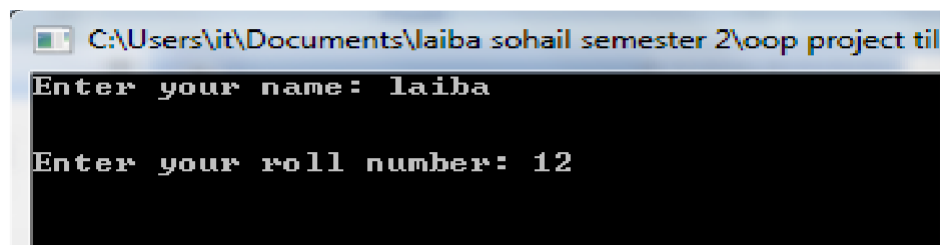
LOGIN
Enter username: 1
Enter password:
```



```
C:\Users\it\Documents\laiba sohail semester 2\oop project till files.exe

Are you ready to take the quiz? yes/no
yes

Good Luck!
```



```
C:\Users\it\Documents\laiba sohail semester 2\oop project til

Enter your name: laiba

Enter your roll number: 12
```

```
C:\Users\it\Documents\laiba sohail semester 2\oop project till files.exe

1. Which fruit is associated with Isaac Newton?
1. apple
2. mango
3. orange
4. banana
your answer?(in number)
1
Correct !
Score = 1 out of 20!

2. What is the boiling point temperature (water)?
1. 50
2. 100
3. 150
4. 200
your answer?(in number)
2
Correct !
Score = 2 out of 20!

3. How many letters are there in Urdu alphabets?
1. 35
2. 36
3. 37
4. 38
your answer?(in number)
3
Correct !
Score = 3 out of 20!

4. If  $5x$  plus 32 equals 4 minus  $2x$  what is the value of  $x$  ?
1. 5
2. 2
3. -1
4. -4
your answer?(in number)
```

```
C:\Users\it\Documents\laiba sohail semester 2\oop project till files.exe

.....Here Is Your Performance.....

Student's name: laiba
Roll Number: 12
Your marks are 20 out of 20
Congrats!! You have PASSED the quiz.
Press any key to continue . . .
```

```
test - Notepad
File Edit Format View Help
....."ONLINE QUIZ MANAGEMENT SYSTEM".....

STUDENT'S DATA:
Students Name: laiba
Roll Number: 13
Marks: 15/20

STUDENT'S DATA:
Students Name: alina
Roll Number: 12
Marks: 14/20

STUDENT'S DATA:
Students Name: ayesha
Roll Number: 14
Marks: 20/20

STUDENT'S DATA:
Students Name: laiba
Roll Number: 12
Marks: 20/20
```

6. CLASS DIAGRAM:

