Topic : Online App Store

Group no : MLB_7.1_6

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We declare that this is our own work, and this Assignment does not incorporate without acknowledgment any material previously submitted by anyone else in SLIIT or any other university/Institute. And we declare that each one of us equally contributed to the completion of this Assignment.

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Description

"AppsyStore" is an online app store where, the users can download apps by visiting to the site. The site is available in 24/7 for every user. Every user can visit to the site and view available apps but, downloading is only available for the registered users. Users can choose their favorable apps from all the categories.

There are many categories like Educational, Games, Apps, Commercial, Health and Media. From each category, all the top-rated apps are shown for the convenience of users. Registered users can review any app they want and can give a rating also.

Developers can register to our site by submitting developer registration form in developer registration section. After that, they can upload their apps to the system from their dashboard.

There is also an admin panel and they can manage registered users, developers and their apps by using admin panel/ dashboard.

This Appstore has a very simple and user-friendly interface that, can easily interact with the users and also with the developers.

1) List down the requirements you have identified, for the system you need to implement. There should be at least 10 different requirements excluding the user login.

1. Before Downloading any App, the User should provide user details and relevant details to the Registration form and register to the system.
2. An unregistered user can register as a usual user or either Developer.
3. After the registration of a developer, the registration request will be sent to the admins, and they can review the request and accept it or not.
4. After the registration usual user/ developer can Login to the system.
5. All the apps available in the system are categorized as the type that provided by the developer.
6. A usual user can download any app that available in the system without doing any payment.
7. There can be several admins and they can manage users, apps, and the developers in the system by using admin panel.
8. An admin has admin name, password, email, admin id.
9. Developers can upload their apps to the system with the required details.
10. One app can have details like App Name, Category, Description, Developer name and more.
11. A user can add reviews and rate the apps available.
12. A Developer can reply to the reviews available for their app.
13. Site owner can manage admins available in the system.

Identifying classes using noun/ verb analysis

- App - class
- User - class
- System - out of scope
- unregistered user - out of scope
- developer - class
- admin - class
- review - class
- Site owner -not a class (Only have login credential)
- admin name - attributes
- password - attributes
- email - attributes
- admin id - attributes
- app name - attributes
- category - class
- description - attributes
- developer name - attributes

CRC Cards

App	
Responsibilities	**Collaboration**
Keep app details and requirements	
Keep developer details	Developer

User	
Responsibilities	**Collaborations**
Keep user details	

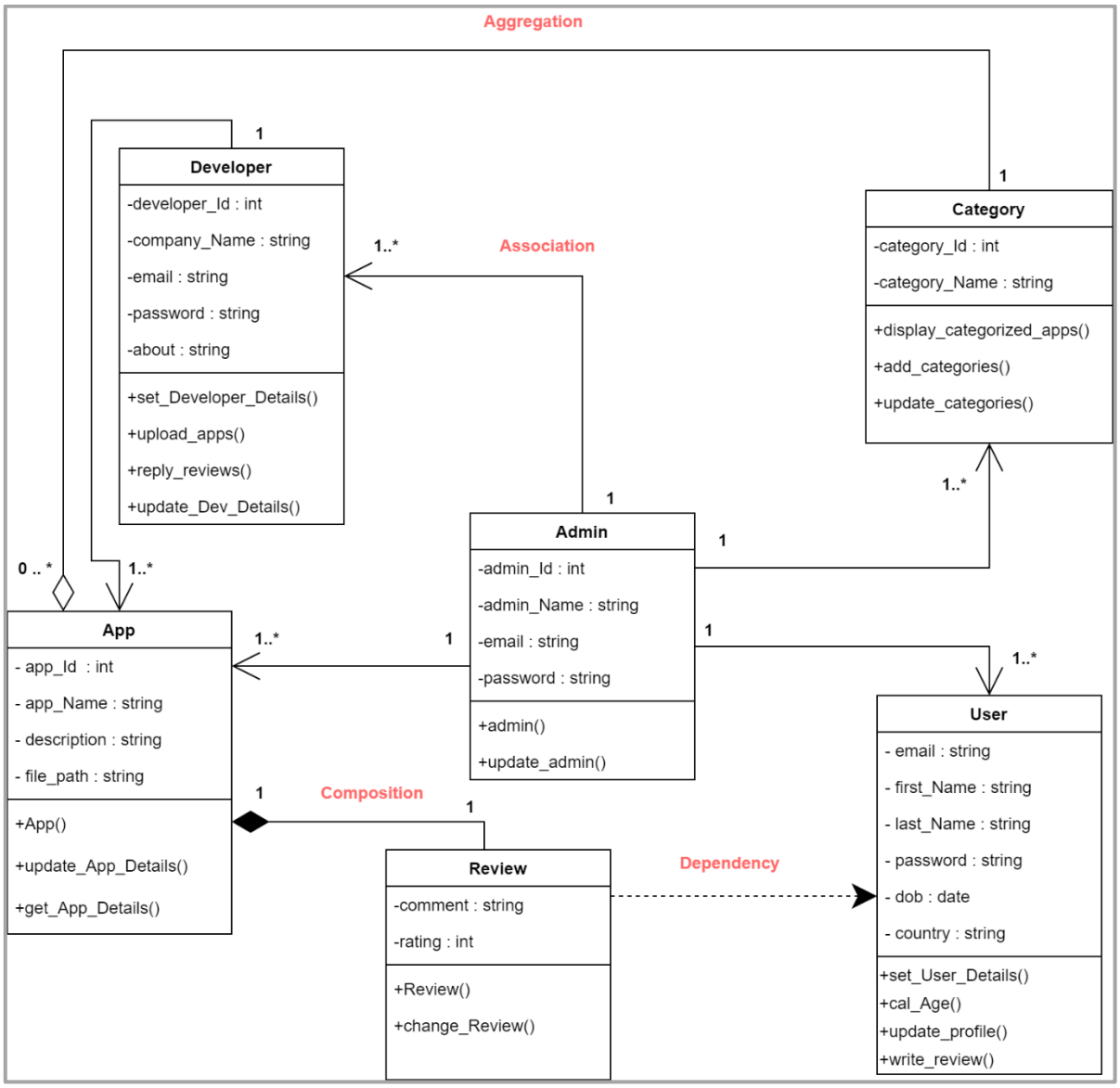
Developer	
Responsibilities	**Collaborations**
Keep developer details	

Admin	
Responsibilities	**Collaborations**
Keep admin details	
Manage users	User
Manage developers	Developer

Review	
Responsibilities	**Collaboration**
Keep review details	App
Keep reviewer's details	User

Category	
Responsibilities	**Collaboration**
Categorize apps	App
Keep available categories	

Exercise 1 - UML Class Diagram



Exercise 2 - Coding for the classes

```
#include <iostream>
#include <string>

class developer {
private:
        int developer_id;
        string company_name;
        string email;
        string password;
        string about;
public:
        void set_developer(int devId,string companyName,string mail,string pwd,string About);
        void update_dev_details();
        void upload_app();
        void update_app();
        void reply_review();
};

void developer::update_dev_details() {
  //implementation goes here
}

void developer::upload_app() {
  //implementation goes here
}

void developer::update_app() {
  //implementation goes here
}

void developer::reply_review() {
  //implementation goes here
}

class category {
private:
        int category_id;
        string category_name;
public:
        void display_categorized_apps();
        void add_categories(int id,string catName);
        void update_categories();

};

void category::display_categorized_apps(){
   //implementation goes here
}
void category::add_categories(int id,string catName){
  //implementation goes here
}
 void category::update_categories(){
```

```
    //implementation goes here
 }

class admin{
private:
        int admin_id;
        string admin_name;
        string email;
        string password;
public:
        admin(int id, string name, string email, string pwd);
        void update_admin();
};

admin::admin(){
        //implementation goes here
 }

 void admin::update_admin(){
        //implementation goes here
 }

class app {
private:
        int app_id;
        string app_name;
        string description;
        string file_path;
public:
         app(int Id,string Name,string desc,string fpath);
        void update_app_details();
        void get_app_details();
};

app::app(int Id,string Name,string desc,string fpath) {
  //implementation goes here
}

void app::update_app() {
  //implementation goes here
}

void app::get_app_details() {
  //implementation goes here
}

class user {
private:
        string email;
        string first_name;
        string last_name;
        string password;
        string dob;
        string country;
```

```
public:
        void set_user_details(string mail,string fname,string lname,string pwd,string dob,string ctry);
        int cal_age();
        void update_profile();
        void write_review();
};

void user::set_user_details(string mail,string fname,string lname,string pwd,string dob,string ctry){
   //implementation goes here
}
int user::cal_age(){
   //implementation goes here
}
void user::update_profile(){
   //implementation goes here
}
void user::write_review(){
   //implementation goes here
}

class review {
private:
        int userId,appId;
        string comment;
        int rating;
public:
        void review(string cmt);
        void change_review();
};

review::review(string cmt){
   //implementation goes here
}
void review::change_review(){
  //implementation goes here
}

int main() {
        string Name,FirstName,LastName, Email, Password,
                        About,CompanyName,Dob,Country,Description,Filepath,Comment;
        int ID;

        //Creating Dynamic Developer Objects
        developer* dev1, * dev2;
        dev1 = new developer;
        dev2 = new developer;

        //Creating Dynamic User Objects
        user* us1, * us2;
        us1 = new user;
        us2 = new user;

        //Creating Dynamic Category Objects
        category* cat1, * cat2;
        cat1 = new category;
```

```
        cat2 = new category;

        //Initializing Dynamic App Objects with Overload constructor
        app* app1, * app2;
        app1 = new app(ID, Name, Description, Filepath);
        app2 = new app(ID, Name, Description, Filepath);

        //Creating Dynamic Review Objects
        review* rev1, * rev2;
        rev1 = new review(Comment);
        rev2 = new review(Comment);


        //Creating Dynamic Admin Objects With Overloaded Constructor
        admin* ad1, * ad2;
        ad1 = new admin(ID, Name, Email, Password);
        ad2 = new admin(ID, Name, Email, Password);

        //Initializing Developers
        dev1->set_developer(ID,CompanyName,Email,Password,About);
        dev2->set_developer(ID, CompanyName, Email, Password, About);

        //Initializing Users
        us1->set_user_details(Email, FirstName, LastName, Password, Dob, Country);
        us2->set_user_details(Email, FirstName, LastName, Password, Dob, Country);

        //Initializing Category
        cat1->add_categories(ID, Name);
        cat2->add_categories(ID, Name);


        delete dev1, dev2;
        delete us1, us2;
        delete cat1, cat2;
        delete rev1, rev2;
        delete ad1, ad2;
        delete app1, app2;


}
```