Todo IT part 2

Topics:
- Object Oriented Programming
- Encapsulation
- Polymorphism
- Enum

Overview:
This is the second part of three where you are going to continue working on you Todo application.
The second part consists of building a new model (class) called AppUser and an enum called AppRole.
All your Class models should also override equals, hashCode and toString from java.lang.Object.

Requirements:
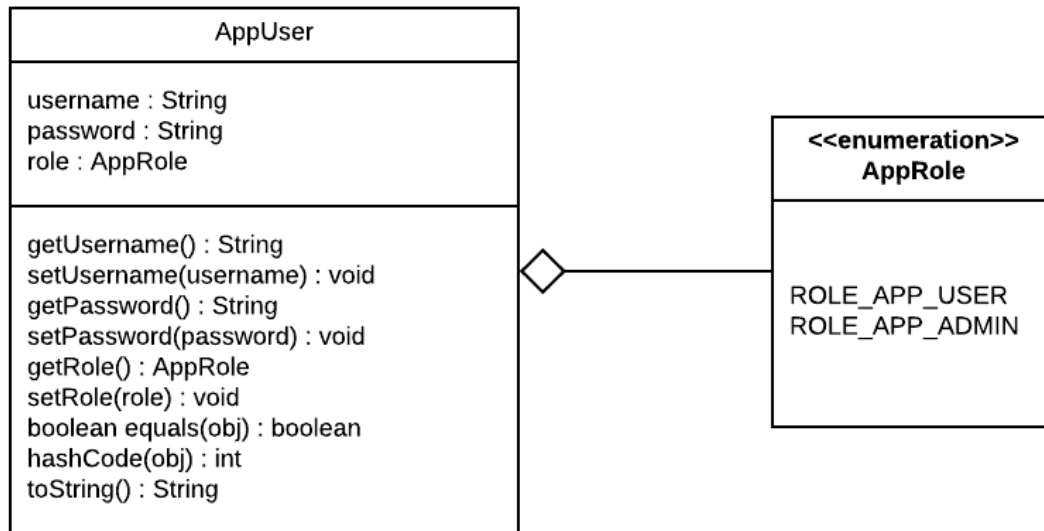- AppUser.class and AppRole enum fully implemented according to requirements.
- Person.class, TodoItem.class, TodoItemTask.class has all needed changes according to specific requirements.

Optional:
- Make sure new features are tested with Junit4 or Junit5.

Good luck!

AppUser.class and AppRole

```
┌─────────────────────────────────────┐
│              AppUser                 │
├─────────────────────────────────────┤
│ username : String                    │
│ password : String                    │
│ role : AppRole                       │
├─────────────────────────────────────┤
│ getUsername() : String               │
│ setUsername(username) : void         │
│ getPassword() : String               │
│ setPassword(password) : void         │
│ getRole() : AppRole                  │
│ setRole(role) : void                 │
│ boolean equals(obj) : boolean        │
│ hashCode(obj) : int                  │
│ toString() : String                  │
└─────────────────────────────────────┘
```

```
┌──────────────────────────┐
│     <<enumeration>>      │
│        AppRole           │
├──────────────────────────┤
│                          │
│ ROLE_APP_USER            │
│ ROLE_APP_ADMIN           │
│                          │
└──────────────────────────┘
```

AppUser:
Fields:
- **username** (private) is a String that acts as the **id** of AppUser. Not allowed to be null. **Not allowed to be null or empty**.
- **password** (private) is a String that contains a password. **Not allowed to be null or empty**.
- **role** (private) contains an **enumerated** type marking the **AppUser** object as being a **ROLE_APP_USER** or **ROLE_APP_ADMIN**. **Not allowed to be null**.

Constructor:
Up to you

Methods:
- Common getters and setters.
- *toString()* method overridden from Object. Don't include password.
- *hashCode()* method overridden from Object. Don't include password.
- *equals()* method overridden from Object. Don't include password

AppRole:
- Have two possible values
- **ROLE_APP_USER**
- **ROLE_APP_ADMIN**

Person.class

- Add a reference to **AppUser** called **credentials**. also create getter and setter for that field.
- Replace **getSummary()** with **toString()** method that **don't** print out **credentials**.
- Override **equals** and **hashcode** from Object. **Exclude credentials** from both.

TodoItem.class and TodoItemTask.class

Remove **getSummary()** methods
Override:
- **toString()** all fields **except Person object(s)**
- **equals()** & **hashCode()** all fields **except Person objects**