

```
import java.util.regex.Pattern;
```

```
public class Login {
```

```
    private String username;
```

```
    private String password;
```

```
    private String cellNumber;
```

```
    private String firstName;
```

```
    private String lastName;
```

```
    public boolean checkUserName(String username) {
```

```
        return username.contains("_") && username.length() >= 3 && username.length() <= 5;
```

```
    }
```

```
    public boolean checkPasswordComplexity(String password) {
```

```
        return password.length() >= 8 &&
```

```
            Pattern.compile("[A-Z]").matcher(password).find() &&
```

```
            Pattern.compile("[0-9]").matcher(password).find() &&
```

```
            Pattern.compile("[^a-zA-Z0-9]").matcher(password).find();
```

```
    }
```

```
    public boolean checkCellPhoneNumber(String number) {
```

```
        return number.matches("^\\+\\d{1,3}\\d{7,10}$");
```

```
    }
```

```
    public void registerUser(String username, String password, String phone, String firstName, String lastName) throws IllegalArgumentException {
```

```
        if (!checkUserName(username)) {
```

```
            throw new IllegalArgumentException("Username must contain an underscore and be between 3 and 5 characters long.");
```

```
        }
```

```
        if (!checkPasswordComplexity(password)) {
```

```
            throw new IllegalArgumentException("Password must contain at least eight characters, a capital letter, a number, and a special character.");
```

```

    }
    if (!checkCellPhoneNumber(phone)) {
        throw new IllegalArgumentException("Cell phone number must be correctly formatted
with an international code.");
    }
    this.username = username;
    this.password = password;
    this.cellNumber = phone;
    this.firstName = firstName;
    this.lastName = lastName;
}

```

```

public boolean loginUser(String inputUsername, String inputPassword) {
    return inputUsername.equals(username) && inputPassword.equals(password);
}

```

```

public String returnLoginStatus(boolean success) {
    if (success) {
        return "Welcome " + firstName + ", " + lastName + " it is great to see you again.";
    } else {
        return "Username or password incorrect, please try again.";
    }
}

```

```

public static void main(String[] args) {
    Login login = new Login();
    try {
        login.registerUser("user_name", "Password1!", "+1234567890", "John", "Doe");
        System.out.println("Registration successful!");
    } catch (IllegalArgumentException e) {
        System.out.println(e.getMessage());
    }
}

```

```
boolean loginSuccess = login.loginUser("user_name", "Password1!");  
String loginStatus = login.returnLoginStatus(loginSuccess);  
System.out.println(loginStatus);  
}  
}
```