

Module 2 Lab 2B
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Assignment Name: Lab Assignment 2A
Assignment Brief: Classes and Objects
Sources:

* <https://ccse.kennesaw.edu/fye/pseudocode/pseudocodeguide.php>

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CLASS User

BEGIN

CREATE userID
CREATE password
CREATE reenteredPassword
CREATE email
CREATE lastName
CREATE firstName
CREATE zip

CONSTRUCTOR User(parameter: password, reenteredPassword, email, lastName,
firstName, zip)

BEGIN
 this.password ← password
 this.reenteredPassword ← reenteredPassword
 this.email ← email
 this.lastName ← lastName
 this.firstName ← firstName
 this.zip ← zip

 this.userID ← getUserID()
END CONSTRUCTOR

METHOD getUserID()

BEGIN
 IF userID IS NOT null
 return userID
 ELSE
 userID ← First char of firstName +
 last 2 char of lastName +
 first 3 char of zip +
 random int from 0 to 999

 return userID
 ENDIF
END METHOD

METHOD checkPassword()

BEGIN
 IF password is equal to reenteredPassword THEN
 return true
 ELSE
 return false
 ENDIF
END METHOD

```
METHOD getPassword
BEGIN
    return password
END METHOD

METHOD getReenteredPassword
BEGIN
    return reenteredPassword
END METHOD

METHOD getEmail
BEGIN
    return email
END METHOD

METHOD getLastName
BEGIN
    return lastName
END METHOD

METHOD getFirstName
BEGIN
    return firstName
END METHOD

METHOD getZip
BEGIN
    return zip
END METHOD

METHOD setPassword(parameter: password)
BEGIN
    this.password ← password
END METHOD

METHOD setReenteredPassword(parameter: reenteredPassword)
BEGIN
    this.reenteredPassword ← reenteredPassword
END METHOD

METHOD setEmail(parameter: email)
BEGIN
    this.email ← email
END METHOD

METHOD setLastName(parameter: lastName)
BEGIN
    this.lastName ← lastName
    userID ← null
END METHOD

METHOD setFirstName(parameter: firstName)
BEGIN
    this.firstName ← firstName
    userID ← null
END METHOD

METHOD setZip(parameter: zip)
```

```

BEGIN
    this.zip ← zip
    userID ← null
END METHOD

METHOD toString()
BEGIN
    return "User{" +
        "userID='" + getUserID() + '\'' +
        ", password='" + password + '\'' +
        ", reenteredPassword='" + reenteredPassword + '\'' +
        ", email='" + email + '\'' +
        ", lastName='" + lastName + '\'' +
        ", firstName='" + firstName + '\'' +
        ", zip='" + zip + '\'' +
        '}'
END Method

END CLASS
```


Client Class


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CLASS main
BEGIN

 CREATE names as an array of names

 METHOD Main
 userCount ← 2

 CREATE users[userCount] as User

 FOR i ← 0; i < userCount; i++
 firstName ← names[random number between 0 and names.length]
 lastName ← names[random number between 0 and names.length]
 email ← first char of firstName + lastName + "@gmail.com"
 password ← names[random number between 0 and names.length] + random int
 0 - 99999999 + names[random number between 0 and names.length]

 user[i] ← User(password, password, email, lastName, firstName, random
number between 10000 and 99999)

 PRINT(users[i])

 PRINT(String.format("Old first name: %s", users[i].getFirstName()))
 PRINT(String.format("Old last name: %s", users[i].getLastName()))
 PRINT(String.format("Old email: %s", users[i].getEmail()))
 PRINT(String.format("Old zip: %s", users[i].getZip()))
 PRINT(String.format("Old password: %s", users[i].getPassword()))
 PRINT(String.format("Old Re-entered Password: %s", users[i].
getReenteredPassword()))
 PRINT(String.format("Old UserID: %s", users[i].getUserID()))

 PRINT("\n### Test checkPassword ###")
 PRINT("The passwords match: " + users[i].checkPassword())
 PRINT("## Change just ReenteredPassword ##")
 END FOR
 END METHOD
END CLASS
```

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 users[i].setReenteredPassword("changeme")
 PRINT(String.format("\tpassword: %s", users[i].getPassword()))
 PRINT(String.format("\tRe-entered Password: %s", users[i].
getReenteredPassword()))
 PRINT("The passwords match: " + users[i].checkPassword())

 firstName ← names[random number between 0 and names.length]
 lastName ← names[random number between 0 and names.length]
 email ← first char of firstName + lastname + "@gmail.com"
 password names[random number between 0 and names.length] + random int
0 - 99999999 + names[random number between 0 and names.length]

 System.out.println("\n### Change All values via mutators ###")
 users[i].setFirstName(firstName)
 users[i].setLastName(lastName)
 users[i].setEmail(email)
 users[i].setPassword(password)
 users[i].setReenteredPassword(password)
 users[i].setZip(random number between 10000 and 99999)

 PRINT(users[i])
 ENDFOR

 FOREACH users as user
 PRINT user
 ENDFOREACH

END METHOD
END CLASS
...

```