

Seneca College

Applied Arts & Technology
SCHOOL OF COMPUTER STUDIES

JAC444

Submission date:17-07-2022

Date:11-07-2022

Workshop 6

Workshop Header (to be included with every file)

/*****

Workshop #

Course:<subject type> - Semester

Last Name:<student last name>

First Name:<student first name>

ID:<student ID>

Section:<section name>

This assignment represents my own work in accordance with Seneca Academic Policy.

Signature

Date:<submission date>

*****/

Code Submission Criteria:

Please note that you should have:

- Appropriate indentation.
- Proper file structure
- Follow java naming convention
- Document all the classes properly
- Do Not have any debug/ useless code and/ or files in the assignment

Deliverables and Important Notes:

All these deliverables are to be uploaded on the blackboard once done.

• You are supposed to create video of your running solution for each task along with demo. It should include voice over explaining the logic and code. You can use diagram like flow charts to aid your explanation. **(40%)**

o Screen Video captured file should state your last name and id, like Ali_123456.mp4 (or whatever the extension of the file is)

• A word/ text file which will reflect on learning of your concepts in this workshop. Also include the instructions on how to run your code. **(30%)**

Seneca College

Applied Arts & Technology
SCHOOL OF COMPUTER STUDIES

JAC444

Submission date:17-07-2022

Date:11-07-2022

o Should state your Full name and Id on the top of the file and save the file with your last name and id, like Ali_123456.txt

- Submission of working code. **(30%)**
- Make sure you follow the “Code Submission Criteria” mentioned above.
- You should zip your whole working project to a file named after your Last Name followed by the first 3 digits of your student ID. For example, **Ali123.zip**. If the zip file is too large to upload on BB , you can upload the video portion on Jac444-NBB team under files/workshop submission/w01
- Your marks will be deducted according to what is missing from the above-mentioned submission details.
- Late submissions would result in additional 10% penalties for each day or part of it.
- Remember that you are encouraged to talk to each other, to the instructor, or to anyone else about any of the assignments, but the final solution may not be copied from any source.

Academic Policies:

Most of the materials posted in this course are protected by copyright. It is a violation of Canada's Copyright Act and [Seneca's Copyright Policy](#) to share, post, and/or upload course material in part or in whole without the permission of the copyright owner. This includes posting materials to third-party file-sharing sites such as assignment-sharing or homework help sites. Course material includes teaching material, assignment questions, tests, and presentations created by faculty, other members of the Seneca community, or other copyright owners.

It is also prohibited to reproduce or post to a third-party commercial website work that is either your own work or the work of someone else, including (but not limited to) assignments, tests, exams, group work projects, etc. This explicit or implied intent to help others may constitute a violation of [Seneca's Academic Integrity Policy](#) and potentially involve such violations as cheating, plagiarism, contract cheating, etc.

These prohibitions remain in effect both during a student's enrollment at the college as well as withdrawal or graduation from Seneca.

Seneca College

Applied Arts & Technology
SCHOOL OF COMPUTER STUDIES

JAC444

Submission date:17-07-2022

Date:11-07-2022

Description:

The following workshop lets you practice basic java coding techniques, creating classes, methods, using arrays, Java I/O, inheritance, polymorphism, Exceptional Handling, JavaFx (GUI).

The focus will be practicing for JavaFx concepts.

Task

You are to create simple BMI calculator, as shown in the figure. User can enter the Height and Weight using JavaFX node Sliders.inInteger number ([Slider \(JavaFX 8\) \(oracle.com\)](#)).

The Calculate Button calculates the BMI for values using formula provided below.

CM/KG: $BMI = \text{Weight} / \text{height}^2 * 10000$

Inch/Lb: $BMI = \text{Weight} * 703 / \text{height}^2$

User should also be able to change the background color of various portions by using color picker component. ([ColorPicker \(JavaFX 8\) \(oracle.com\)](#)).

Other Nodes that will be required are :

- [RadioButton \(JavaFX 17\) \(openjfx.io\)](#)

Optional Component recommended to try

- [TableView \(JavaFX 17\) \(openjfx.io\)](#).

The GUI should be separate then the computation part. The screen provided below is only sample. You can present it in better way using at least the components/nodes mentioned in this task. The task is to use Java FX.

Seneca College

Applied Arts & Technology
SCHOOL OF COMPUTER STUDIES

JAC444

Submission date:17-07-2022

Date:11-07-2022

BMI CALCULATOR

Choose Scale

☒ cm/kg ☐ in/Lb

HEIGHT (in Centimeter)

WEIGHT (in KiloGrams)

BMI	Weight Status
Below 18.5	Underweight
18.5-24.9	Normal
25.0-29.9	Overweight
30 and Above	Obese

Calculate

Height

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

Weight

10 30 50 70 90 110 130 150 170 190