Even Semester (2019)



**BINUS UNIVERSITY**



**BINUS INTERNATIONAL**



**Assignment Cover Letter**

**(Individual Work)**

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| **Student Information**: | **Surname** | | |  |  | **Given Names**  Eris | **Student ID Number**  **2201797052** |
| 1. | **Muhammad Erizky Suryaputra** | |
|  |  |  |  |  |  |  |  |
| **Course Code** | **: COMP6510** |  |  |  |  | **Course Name** | **: Programming Language** |
| **Class** | **: L2AC** |  |  |  |  | **Name of Lecturer(s)** | : Jude Martinez |
|  |  |  |  |  |  |  |  |
| **Major** | **: CS** |  |  |  |  |  |  |
| **Title of Assignment**  (if any) | : EzBimay |  |  |  |  |  |  |
| **Type of Assignment**    **Submission Pattern** | **: Final Project** | |  |  |  |  |  |
| **Due Date** | **: 01 - 07 - 2019** | |  |  |  | **Submission Date** | **: 01 – 07 -2019** |

The assignment should meet the below requirements.

1. Assignment (hard copy) is required to be submitted on clean paper, and (soft copy) as per lecturer’s instructions.
2. Soft copy assignment also requires the signed (hardcopy) submission of this form, which automatically validates the softcopy submission.
3. The above information is complete and legible.
4. Compiled pages are firmly stapled.
5. Assignment has been copied (soft copy and hard copy) for each student ahead of the submission.

# Plagiarism/Cheating

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# Declaration of Originality

By signing this assignment, I understand, accept and consent to BiNus International terms and policy on plagiarism. Herewith I declare that the work contained in this assignment is my own work and has not been submitted for the use of assessment in another course or class, except where this has been notified and accepted in advance.

Signature of Student:

Muhammad Erizky Suryaputra

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**i. Project Specification**

This app goal is to help Binusian when they’re going to use Binus Maya. It will solve many problem including a problem that occurred before they even used Binus Maya! First they open their preferred browser, then type and search Binus Maya in google, click the link, click the login button twice for some reason after inputting the long username and password while only to be greeted with another loading screen which is very time consuming.

With this app you only just need to fire it up and it will launch your browser on your PC with Binus Maya website already opened, after the Binus Maya website loaded, it will input your username and password automatically and click the sign in button so you don’t have to waste anymore time doing all of that.

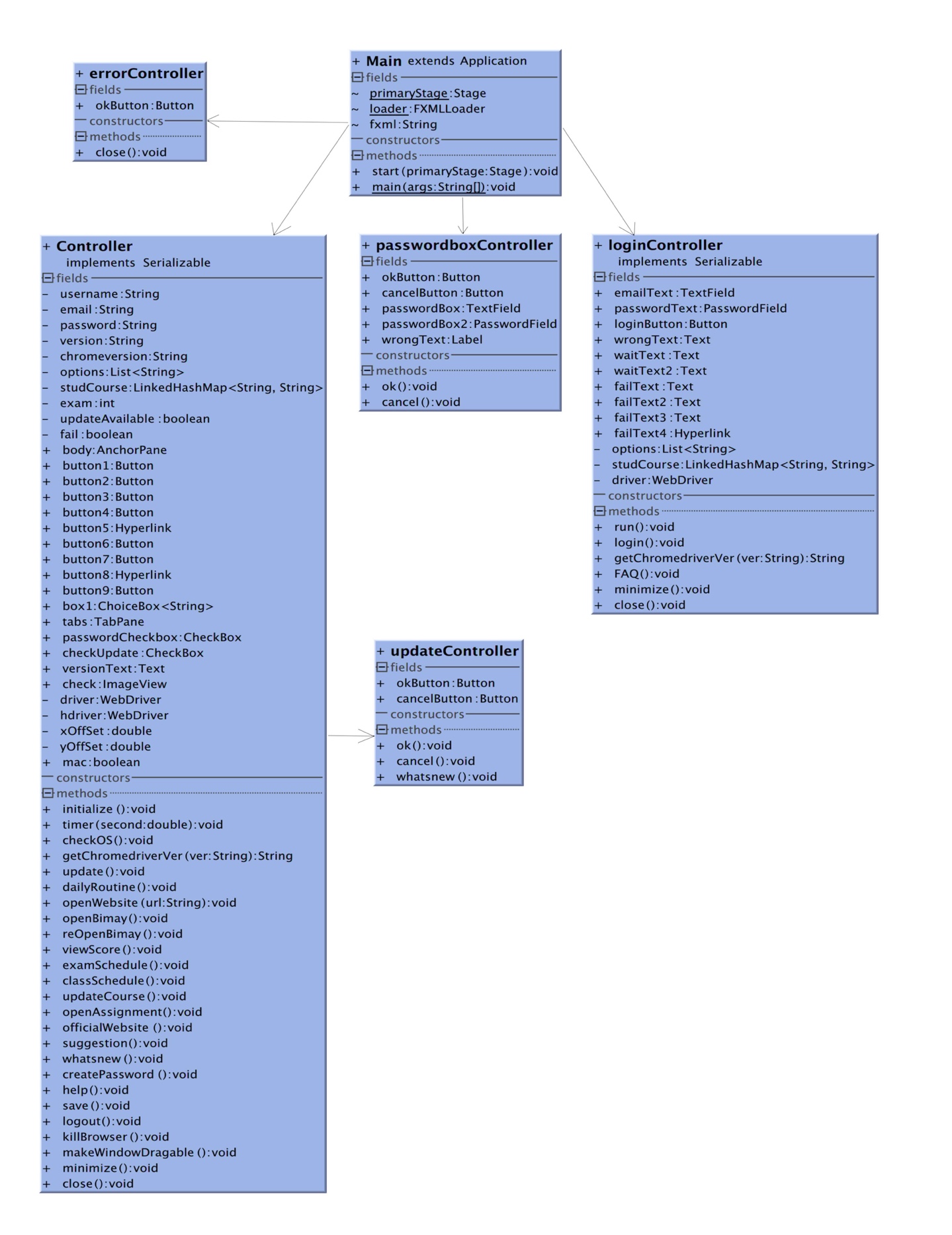
After you signed in, you can access all of the features including one of them called “shortcuts”, it’s a group of buttons which one of them is called the “Submit assignment” button, when you clicked this button, the browser will automatically go to the submit assignment page depending on the course you selected.

Sometimes people tend to forgot they have an assignment that’s due in that same day or maybe doesn’t even know about it! With the assignment due date feature you don’t have to worry about it anymore, because you can see all your assignments that you haven’t submitted date and time on your outlook calendar which can be synchronized with your phone calendar, which is very convenient.

Storing\saving sensitive user account information is very dangerous if being handled incorrectly, it could lead to fatal. So security is the number one priority on the list when creating this app. We mentioned that you just need to fire the app to access Binus Maya with your account, so that means everyone can access your account right? Fear not because we provided an additional security layer when opening the app so not anybody can access your account.

After security we have update on the second of our priority list. Because providing fixes or changes to many users is not easy. People won’t bother to check if there’s a new version available or even update it even if there’s a fix for a big security hole for example unless you told them so which is impossible to contact them one by one individually. So we equipped EzBimay with check for update that will check for a new update available and will update the app itself if available.

**ii. Solution Design**

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**iii. What was implemented**

* **Javafx**

Used for the app GUI.

* **Selenium Driver**

Used for controlling the browser and browser automation.

* **Exchange Web Services Java API**

Used for accessing the user Outlook Calendar.

**iv. How it works**

**Browser,** the app uses selenium driver to fully automate and control the web browser.

**Login,** when verifying user account during login, it basically just passes through the account login credentials to Binus Maya login site to check whenever the account is legit or not and then return the statement.

**Course and Assignment,**  the app uses a method called “web scraping” from the user Binus Maya home site to get and save all the user current semester courses complete with the web link for each of the courses. The app saves the lecture class web link instead of lab class, so the user doesn’t have to change class each time they wanted to submit an assignment after clicking the course.

**Shortcuts,**  if you click one of the three buttons, the browser will go to the site the button was assigned to. Very convenient.

**Password,** after ticking the “Require password when opening the app.” In the settings tab, the app ask the user to fill in a keyword that will soon to be the new password for each time the app launched.

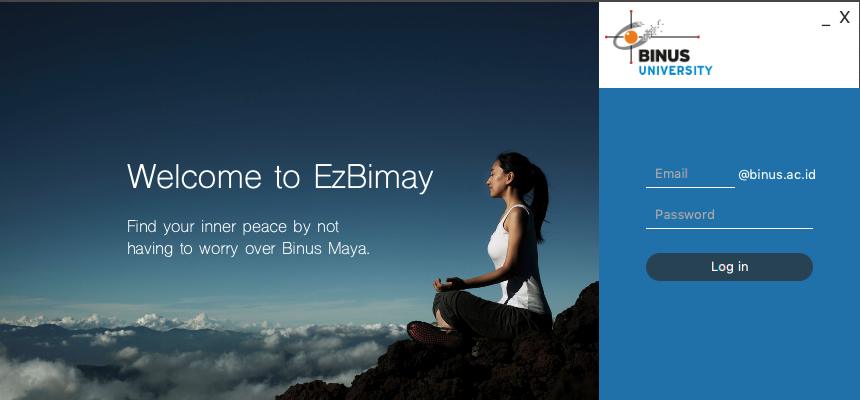
**Update,** the app checks for update each time during start up or initialization and if there is, it will prompt the user asking if they want to update the app. After accepting, the app change into an updater that will download the latest release and replacing the old one. The app will open again after the updating was done.

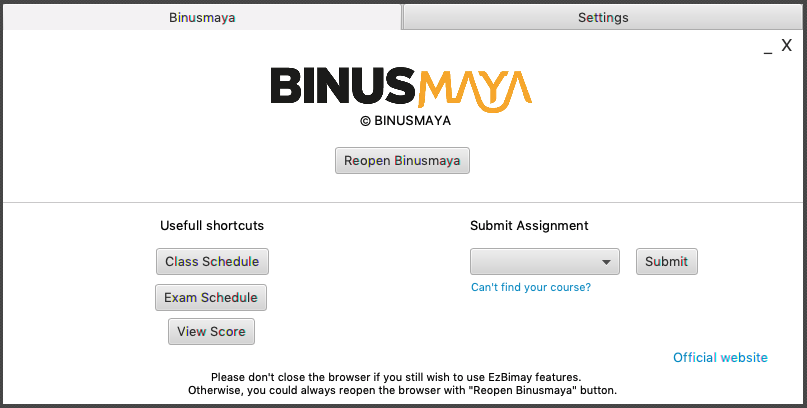
**Log Out,** the app delete all the stored information about the last user account and take you back to the login screen.

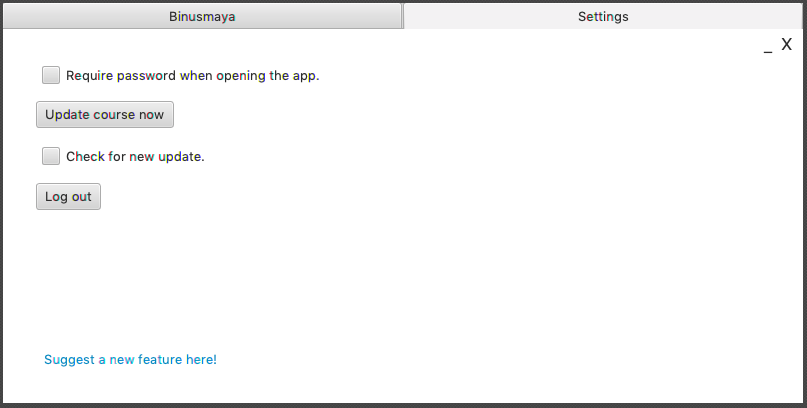
**Security,** After login, the app will encrypt the user account username and password with encryption algorithm that is unique for each individual app so cracking the file will be harder.

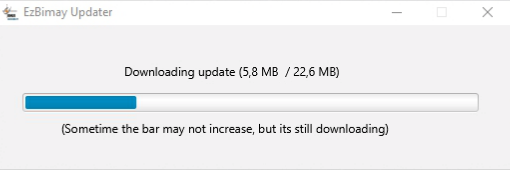
**Calendar,** the app uses Exchange Web Service Java API to access and create calendar events to the user Outlook Calendar.

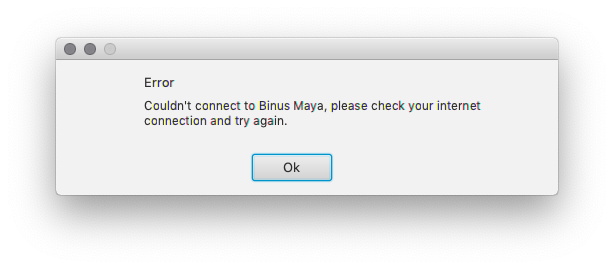
**v. Evidence**

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