|  |  |
| --- | --- |
| **Assignment Case** |  |
| COMP6178  Introduction to Programming |
| **Computer Science** | **O213-COMP6178-FG02-02** |
| ***Valid on*** *Odd Semester Year 2020/2021* | **Revision 00** |

1. Seluruh mahasiswa tidak diperkenankan untuk:

*All students are not allowed to:*

* + 1. Melihat sebagian atau seluruh jawaban mahasiswa lain,

*Seeing a part or the whole answer from other student*

* + 1. Menyadur sebagian maupun seluruh jawaban dari buku,

*Adapted a part or the whole answer from the book*

* + 1. Mendownload sebagian maupun seluruh jawaban dari internet,

*Downloading a part or the whole answer from the internet,*

* + 1. Mengerjakan soal yang tidak sesuai dengan tema yang ada di soal,

*Working with another theme which is not in accordance with the existing theme in the matter of the case,*

* + 1. Melakukan tindakan kecurangan lainnya,

*Committing other dishonest actions,*

* + 1. Secara sengaja maupun tidak sengaja melakukan segala tindakan kelalaian yang menyebabkan hasil karyanya berhasil dicontek oleh orang lain / kelompok lain.

*Accidentally or intentionally conduct any failure action that cause the results of the project was copied by someone else / other groups.*

1. Jika mahasiswa terbukti melakukan tindakan seperti yang dijelaskan butir 1 di atas, maka **nilai mahasiswa** yang melakukan kecurangan (menyontek maupun dicontek) akan di – **NOL** – kan.

*If the student is proved to the actions described in point 1 above, the score of the student which committed dishonest acts (cheating or being cheated) will be “Zero”*

1. Perhatikan jadwal pengumpulan jawaban, segala jenis pengumpulan jawaban di luar jadwal tidak dilayani.

*Pay attention to the submission schedule, all kinds of submission outside the schedule will not be accepted*

1. Persentase penilaiaan untuk matakuliah ini adalah sebagai berikut:

*Marking percentage for this subject is described as follows:*

|  |  |  |
| --- | --- | --- |
| **Tugas Mandiri**  *Assignment* | **Proyek**  *Project* | **UAP**  *Final Exam* |
| 40% | - | 60% |

1. Software yang digunakan pada matakuliah ini adalah sebagai berikut:

*Software will be used in this subject are described as follows:*

|  |
| --- |
| **Software**  *Software* |
| Java 8  Eclipse 2020.6 |

## Ekstensi file yang harus disertakan dalam pengumpulan tugas mandiri dan UAP untuk matakuliah ini adalah sebagai berikut:

*File extensions should be included in assignment and final exam collection for this subject are described as follows:*

|  |  |  |
| --- | --- | --- |
| **Tugas Mandiri**  *Assignment* | **Proyek**  *Project* | **UAP**  *Final Exam* |
| JAVA, CLASS | - | JAVA, CLASS |

## Soal

*Case*

**Fbucks Coffee**

PT. ForeGround is a company that is making new coffee shops. The name of the shop is **Fbucks Coffee**. You as a programmer are asked to make a prototype **cashier application** for **Fbucks Coffee**. The requirements are:

* The application consists of **3 menus**:

1. **Buy Coffee**
2. **Check Out**
3. **Exit**

Shape, rectangle

Description automatically generated

* If user choses menu **1** (“**Buy Coffee**”), then the program will:
* Ask the user their **Coffee Name**. Validate that the **Coffee Name is unique** (already existing coffee’s name will be rejected). After successfully insert the **Coffee Name**, do not forget to append “<<space>>**Coffee**” to the **Coffee Name**.
* Ask the user their preferred **Coffee Type**. Validate that the Coffee Type **must be either “Cappuccino”, “Americano” or “Latte”** **(Case Sensitive)**.
* Ask the user if they want to add **Extra Sugar**. Validate that the Extra Sugar **must be either “Yes”, or “No”** **(Case Insensitive)**.
* Ask the user their **Coffee Quantity**. Validate that the Coffee Quantity **must be between 1 and 100**.

Text

Description automatically generated

* Determine the **Coffee Quality** based on this table:

|  |  |
| --- | --- |
| **Coffee Type** | **Coffee Quantity** |
| Cappuccino | 1 |
| Americano | 2 |
| Latte | 3 |

* Calculate the **Coffee Price** based on this formula:



* If **Extra Sugar** equals to **“Yes”** (Case Insensitive) then add the **Coffee Price** with **Extra Price**
* Calculate the **Extra Price** based on this formula:



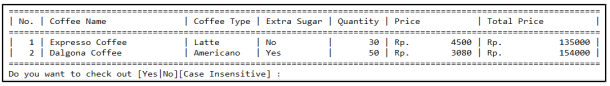
* Calculate the **Total Price** based on this formula:



* Save the **coffee order** in a **Collection (Vector / Array List / Array)**.
* If user choses **menu 2** (“**Check Out**”), then the program will:
* If there is **no order have been made**, then **display message “You haven’t added any order, please make a new one”**.



* Otherwise, display **all coffee orders** that consist of **Coffee Name, Extra Sugar, Quantity, Price, Total Price**. Then, ask the user to check out their order.



* If the user choses **“No”**, then the program will **back to main menu cancelling the checkout process**.
* **Otherwise**. If the user choses **“Yes”**, then calculate the **Grand Price. Grand Price** is **total** of **all Total Price** of the **coffee order**.
* Then ask the user to input the **Payment**. Validate that the payment **must more than or equals total price**.

Graphical user interface, application

Description automatically generated

* After that, **remove all the orders**.
* If user choses **menu 3** (“**Exit**”), validate that the order must be empty
* If the **order is not empty**, then **display message “You haven’t paid your transaction yet”**. **After that back to main menu**.



* If the **order is empty**, then **display message “Thank you for using this app”. Then the program will be closed**.



**Good Luck**