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| **Ujian Akhir Praktikum - Semester Ganjil 2018/2019**  *Practicum Final Exam - Odd Semester Year 2018/2019* | | | | | |
| **Matakuliah**  *Subject* | | **COMP6153 - Operating System** | | |  |
| **Kelas**  *Class* | **: BH01** | | **Tanggal**  *Date* | **: 1/12/2019** |
| **Dosen**  *Lecturer* | **: D3089 - Rubil, S.T., M.T.** | | **Waktu**  *Time* | **: 15.20 – 17.00** |

**PERATURAN UJIAN:**

*Exam Regulations:*

* Mahasiswa tidak diperbolehkan membuka **BUKU** atau catatan apapun

*Student is not allowed to open or use any books or notes*

* Mahasiswa tidak diperbolehkan menggunakan disket/flash disk/tempat penyimpanan data apapun di dalam ruangan ujian

*Student is not allowed to use disc/flash disc/or any other storage devices in exam room*

* Mahasiswa tidak diperbolehkan berdiskusi dengan peserta ujian lainnya

*Student is not allowed to discuss with other exam participants*

* Asisten **BERHAK** memberi nilai 0 **(NOL)** bagi peserta ujian yang melakukan segala bentuk kecurangan

*Assistant is able to give 0 (ZERO) score for exam participant who does any cheating actions*

* Kumpulkan jawaban dan soal tepat pada waktunya

*Submit the case and answer on time*

* Bila Anda tidak membaca peraturan ini, maka Anda dianggap telah membaca dan menyetujuinya

*If you have missed to read these regulations, so you are considered to have read and agreed on it*

**PERHATIAN!**

*Attention!*

* Kerjakan sesuai dengan soal

*Work in accordance with the exam case*

* Bagi yang mengerjakan tidak sesuai dengan soal akan diberikan sanksi sebagai berikut:

*For those who do not work in accordance with the exam case will be punished as follows:*

* + - * **Jika** **ada** penilaian logika, maka penilaian logika adalah **NOL (0)**

***If there is*** *logic marking, it will be marked as* ***ZERO (0)***

* + - * Untuk penilaian yang lain (selain logika) akan **dikalikan** setengah dari nilai yang diperoleh

*Another marking (beside logic) will be* ***multiplied*** *by half the value obtained*

**Important Notes**:

1. Use your **own Console** and **Scheduler**.
2. Youmustuse **Semaphore** to **control** operation.
3. You must use **Timer** to print tick of time.
4. Use **KThread** to view existing files.

**Soal**

*Case*

**File Manager**

**File Manager** is an application to manage files such as sending and receiving files between user and view files which the user receives. As a programmer, you are being asked to create an application to help them manage their order using **nachOS**.

First, this application will show the **computer number** (based on the network link address) and **3 main** **menus** consist of:

* **Send File**
* **View Existing File(s)**
* **Exit**

A close up of a logo

Description generated with very high confidence

**Figure 1. File Manager Main Menu**

1. **Send File**

If the user chooses **Menu 1** (**Send File**), then the application will:

* Ask the user to **input file name**. The **file name** must contain **dot** (‘**.**’). Dot **must not be** **in** **front** **of** or **in the end** of the **file name**.

A close up of a piece of paper

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**Figure 2. Input file name**

* Ask the user to **input file size**. The file size must be between **1 and 500 Megabytes**.

A screenshot of a cell phone

Description generated with high confidence**Figure 3. Input file size**

* Ask the user to **input file type**. The file type must be between “**Word Document**”, “**Excel Worksheet**”, or “**Unspecified File**” (**case sensitive**).

**A screenshot of a cell phone

Description generated with high confidenceFigure 4. Input file type**

* Ask the user to input the receiver’s **computer name**.

**A screenshot of a cell phone

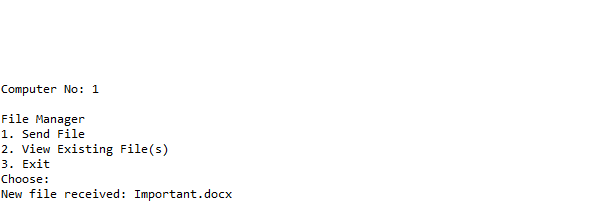
Description generated with very high confidenceFigure 5. Input computer name**

* After fulfilling all validations, the application will **send** the file and **show a message**.

**A screenshot of a cell phone

Description generated with very high confidenceFigure 6. Success Message after Insert**

* Then, a notification will appear in the receiver’s main menu.

**Figure 7. Receiver’s view after receiving the file**

1. **View Existing File(s)**

If the user chooses **Menu 2** (**View Existing File(s)**), then the application will:

* **Check** if the current user **has received a file**.If the user **has not received** any file, the application will **show error message**.

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**Figure 8. No Available File Error Message**

* Otherwise, if the current user **has available file(s)**, the application will **show all files received** using **KThread** and **Scheduler** (**FIFO concept**). The files **will be shown with delay 1000 milliseconds** (use **Thread sleep**).

A screenshot of a cell phone

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**Figure 9. View Existing Files Received**

1. **Exit**

If the user chooses **Menu 3** (**Exit**), the application will **print tick of time using Timer**. After that, the application will **exit**.

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**Figure 10. Ticks of Time Application has been running**