


Onsite Case	
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Materi

Material

- OOP Concept (Inheritance)
- Super Class and Subclass

Soal

Case

FX Legends

Bluejack game developer ask you to develop a game tracker based on pc game titled **FX Legends**. This game tracker is a benchmark for how far you understand about *inheritance in* the Object-Oriented Programming concepts. This tracker will record all your skills used, kill count, healing teammates and damage taken. The application will start with displaying main menu.

```
FX Legends
=====
1. View Legends Profile
2. Add Legends
3. Update Legends
4. Delete Legends
5. Exit
Choose >>
```

Fig 1. Main Menu

The **Main Menu** consists of:

➤ View Legends Profile.

In this menu it is necessary to choose what type of legends.

```
Choose the Type
=====
1. Fragger
2. Support
3. Tanker
4. back
choose >>
```

Fig 2. Type of legends

- If the user chooses **Fragger** the program will view all the **Fragger type**.

Fragger						
No.	Name	Speed	Armor	Frag	Skill	
1	Bangelore	3	1	100	Tactical Smokes	
2	Wraith	3	1	150	Into the Void	
3	Mirage	3	1	155	Bamboozle	

Fig 3. Fragger type

- If the user chooses **Support** the program will view all the **Support type**.

Support						
No.	Name	Speed	Armor	kills	Healed	Skill
1	Lifeline	2	2	1500	15	Health Drone
2	Bloodhound	2	2	1555	17	Eye of the Allfather
3	Pathfinder	2	2	500	17	Grappling Hook

Fig 4. Support type

- If the user chooses **Tanker** the program will view all the **Tanker type**.

Tanker						
No.	Name	Speed	Armor	kills	Damage Taken	Skill
1	Gibraltar	1	3	33	20000	Dome of Protection
2	Caustic	1	6	55	33000	Nox Gas Trap

Fig 5. Tanker type

If the user chooses back the program will be back at the main menu.

➤ Add Legends.

This where the program adds a tracker between player. The user will ask to input:

1. Input the **legend type**, validate the legend type must be between “**Fragger**”, “**Support**” and “**Tanker**” ignore case.
2. Input the **legend name**, validate the legend name’s length must be **between 5 and 15 characters**.
3. Input the **legend skill**, validate the legend skill’s length **min 3 characters**.
4. Next input is based on what type of legends picked.
 - **Fragger** will be asked what **speed** the legends have. Validate the speed min **1 speed**.
 - **Fragger** will be asked how many **frag** the legends have. Validate the frag min **0 frag**.
 - **Support** will be asked what **speed** and **armor** the legends have. Validate the **speed** and **armor min 1**.
 - **Support** will be asked how many **kills** and **heals** the legends have. Validate the **kills** and **heals min 0**.
 - **Tanker** will be asked what **armor** the legends have. Validate the **armor min 1**.

- **Tanker** will be asked how many **kills** the legends have. Validate **the kills min 0**.
- **Tanker** will also be asked how many **damage taken** the legends take. Validate the **damage taken min 100**.

5. **Traits**, every legend have its own trait depending **what type the legends inherit**.

- **Fragger** base **armor is 1** and **will not go higher**. However, the **speed will always increase by 3**.
- **Support** base **armor** and **speed will always increase by 2**.
- **Tanker** base **speed is 1** and **will not go higher**. However, the **armor will always increase by 3**.

Type	Armor	Speed
Fragger	1	input+3
Support	Input+2	Input+2
Tanker	Input+3	1

6. **More information run the exe.**

```
What is your legend type [Fragger |Support| Tanker] : frag
What is your legend type [Fragger |Support| Tanker] : fragger
What is your legend name [5-15 characters] : sak
What is your legend name [5-15 characters] : sakiro
What skill do your legends have [min 3 characters] : die twice
What speed do your legends have [min 1] : 3
Congrats because you are a FRAGGER your speed just increase by 3 !
How many frags do your legends have [min 0] : 156
Your legends has been added !
```

Fig 6. Add Legends

➤ Update Legend

This menu, will allow to update the tracker. The program will show all the legends first by selecting the type of the legends see **Fig 2. Type of legends, Fig 3. Frag, Fig 4. Support and Fig 5. Tanker**.

After that the program will ask which legends should be updated.

Fragger					
No.	Name	Speed	Armor	Frag	Skill
1	Bangalore	3	1	100	Tactical Smokes
2	Wraith	3	1	150	Into the Void
3	Mirage	3	1	155	Bamboozle
4	Sakiro	6	1	156	die twice

Choose a legend to be updated [1..4] : 4

Fig 7. Choose Update Legend

- Choose legend. Validate the choose **between 1** and the **max size of the legends**.
- After that the user asked to input **legends name**. Validate the legends name's length **between 5 to 15 characters**.

- Input what **skill** do the legends have. Validate the skill's **length min 3 characters**.
- Next input is based on **what type of legends picked**. See **Add Legends** number **4 and 5**.

```
What is your legend name [5-15 characters] : Dante
What skill do your legends have [min 3 characters] : Sword of Parda
What speed do your legends have [min 1] : 12
Congrats because you are a FRAGGER your speed just increase by 3 !
How many frags do your legends have [min 0] : 1455
Your legends has been updated !
```

Fig 8. Updated Legends

➤ Delete Legends

This menu, will allow to delete the tracker. The program will show all the legends first by selecting the type of the legends see **Fig 2. Type of legends**, **Fig 3. Frag**, **Fig 4. Support** and **Fig 5. Tanker**.

Support						
No.	Name	Speed	Armor	kills	Healed	Skill
1	Lifeline	2	2	1500	15	Health Drone
2	Bloodhound	2	2	1555	17	Eye of the Allfather
3	Pathfinder	2	2	500	17	Grappling Hook

Choose a legend to be deleted [1..3] : 1
Your legends has been deleted !

Fig 9. Choose Delete Legend.

- Choose legend. Validate choose must be **between 1** and the **max size of the legends**.
- After that delete the selected number.

➤ Exit.

If the user choose this menu, the program will **terminate** and **exit the program**.

Please run the EXE file to see the sample program.