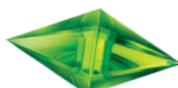




# The SIMPLICITY



K7 - TON618

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01

## **Game Description**

02

## **User Manual**

03

## **Task Distribution**

04

## **Final Structure**

05

## **Design Pattern : Singleton**



# **TABLE OF CONTENTS**



# SIM-PLICITY



## Game Description

Sim-Plicity appears to be a similar game towards "The Sims", where you can play as a "Sim" and interact with the world. As a Sim, you have the privilege do many things in this game, just like The Sims. You can cook, sleep, go to the bathroom, eat, and many more. You can also work as a Doctor, Clown, Police, Programmer, and Chef!

You can interact with many objects, such as stoves, beds, and countless others. You can also change your character and play as another Sim with a different name and job! Although you can have much fun, you also have to look out for your health, mood, satiety, and money since they are limited. Be careful about what you do since if you're not careful, your Sim can die!



The picture on the side represents you as a Sim character, with several description variables that are visible when playing the game.

This game is a project of one of our uni's course, **IF2212 Object Oriented Programming IST**. In this project, we are asked to implement object-oriented concepts such as Inheritance, Interface, Abstract Class, Polymorphism, Generics, Exceptions, and Currency.

# SIM-PLICITY



## Game Description

Here's the list of several things that you can do in this game:

- Work
- Exercise
- Sleep
- Eat
- Cook
- Buy Things
- Change Job
- Upgrade your House
- Edit your room
- Poop

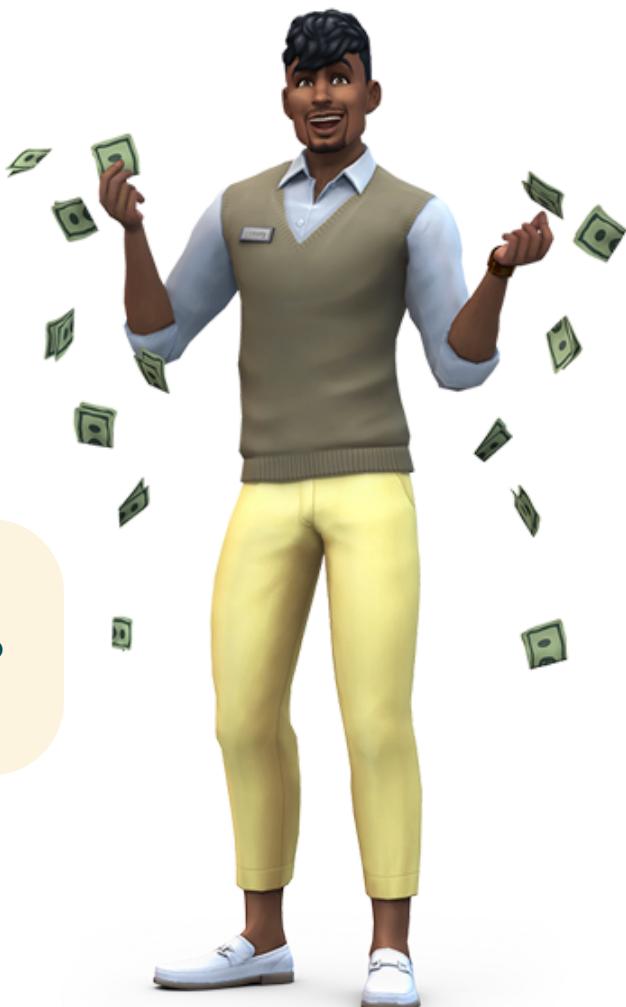
- Add another sim
- Change Sim
- Visit Others' House
- Watch TV
- Play Game
- Sholat
- Play Piano
- Shower
- Stargaze
- Read Books

There are several objects here, too!

You can interact with them:

- Bed(s)
- Stove(s)
- Table and Chair
- Toilet
- Clock

Similar as humans in the real world, right? We know you're all thrilled to play Sim-Plicity! Well, who isn't?



# OUR USER MANUAL



## Setting up Gradle

The usage of Gradle is essential to run the program. Here are the following steps to successfully run Sim-Plicity!

If you've installed Gradle previously, kindly skip the first step.

1

## INSTALLATION

Install Gradle through the following link :  
<https://gradle.org/install/>

You can also check the version through this command :

```
gradle -v
```

2

## CLONE

Clone the github repository on your device through this command on your terminal/cmd

```
git clone  
https://github.com/kevinssheva/Tubes-OOP-K07.git
```

3

## RUN

Open terminal in the same folder that contains the repo. Then, run the following code

On Terminal :

```
gradlew run -q --  
console=plain
```

On IDE (Visual Studio Code) :

```
gradle run -q --  
console=plain
```

Our game should be starting by now. Enjoy!

## MENU

After running the program, the game menu should pop up, like this:

```
Here is the menu
1.Start Game
2.Load Game
3.Help
4.Exit
```

To continue, type in the number of your desired command. **Do not type in the name of command.** For example, to display help, type "3".

## HELP

If you are confused by the flow of our game, simply type "3" through the menu and help is on the way!

When you type in a command, it shows the details of the command. Specifically for actions, it will show the effects of that particular action.

## START GAME

If you typed 1, you've picked to start the game! You will then be asked to give your new Sim a name.

Then, a list of job will be displayed. Fun fact: Your Sim's job will be randomized, you can check it at the bottom of the list!

```
Here's the list of job that we have. But, your sim's job will be chosen randomly
1.Clown
2.Chef
3.Police
4.Programmer
5.Doctor
```

```
Your sim's job is __
Your sim has been generated!
Click enter to proceed
```

1

2

3



### How to play the game?

The following manual contains all essential information for the user to make full use of the program.

Follow the upcoming steps to fully be entertained by Sim-Plicity!

## LIST OF ACTIONS

After accomplishing each method, there will be a list of actions that your Sim can do, it should be something similar to the following:

Here is the list of things that you can do

- Help
- Work
- Exercise
- Buy Things
- View Sim Info
- View Current Location
- View Inventory
- Upgrade House
- Move Room
- Edit Room
- Add Sim
- Change Sim
- List Object
- Go To Object
- Visit Other's Houses
- Save Game
- Exit

To make your Sim do a certain action, simply type in the action name. Be aware, it's **case sensitive!**

## SAVE AND LOAD

To ensure that your world in Sim-Plicity stays the same after you exit the game, type in the command "Save Game" before you exit. After you've exited, when you re-launch the game, type "2" to re-load the game you've previously played.

## EXIT

When you've explored Sim-Plicity enough, feel free to exit the game, by simply typing "Exit". It closes the game program, we'll see you in another time!

## Experimental Save and Load

We did our best to implement the Save and Load feature. We know there are still some bugs we need to fix. Our save and load feature still couldn't handle all the passive actions.

4

5

6



## How to play the game?

The following manual contains all essential information for the user to make full use of the program.

Follow the upcoming steps to fully be entertained by Sim-Plicity!

1

## **Jonathan Arthurito Aldi Sinaga**

- 
- Class diagram
  - Source code Class Object, methods eat, pekerjaan, beli barang, Class Main
  - Testing program
  - Booklet

2

## **Felisa Aidadora Darmawan**

- 
- Class diagram
  - Source code Class Room, methods sleep, upgrade rumah, check time, Class Dish
  - Testing program
  - Booklet

4

## **Ferdinand Refrandt**

- 
- Class diagram
  - Source code Class World, methods kerja, berkunjung, lihat inventory, Class Furniture
  - Testing program
  - Booklet

# **TASK DISTRIBU- TION**

## **TON - 618**

3

## **Lie, Kevin Sebastian S. T.**

- 
- Class diagram
  - Source code Class Home, methods exercise, buang air, memasang barang, Class Ingredients, Save and Load, Manager.
  - Testing program
  - Booklet

5

## **Aufar Ramadhan**

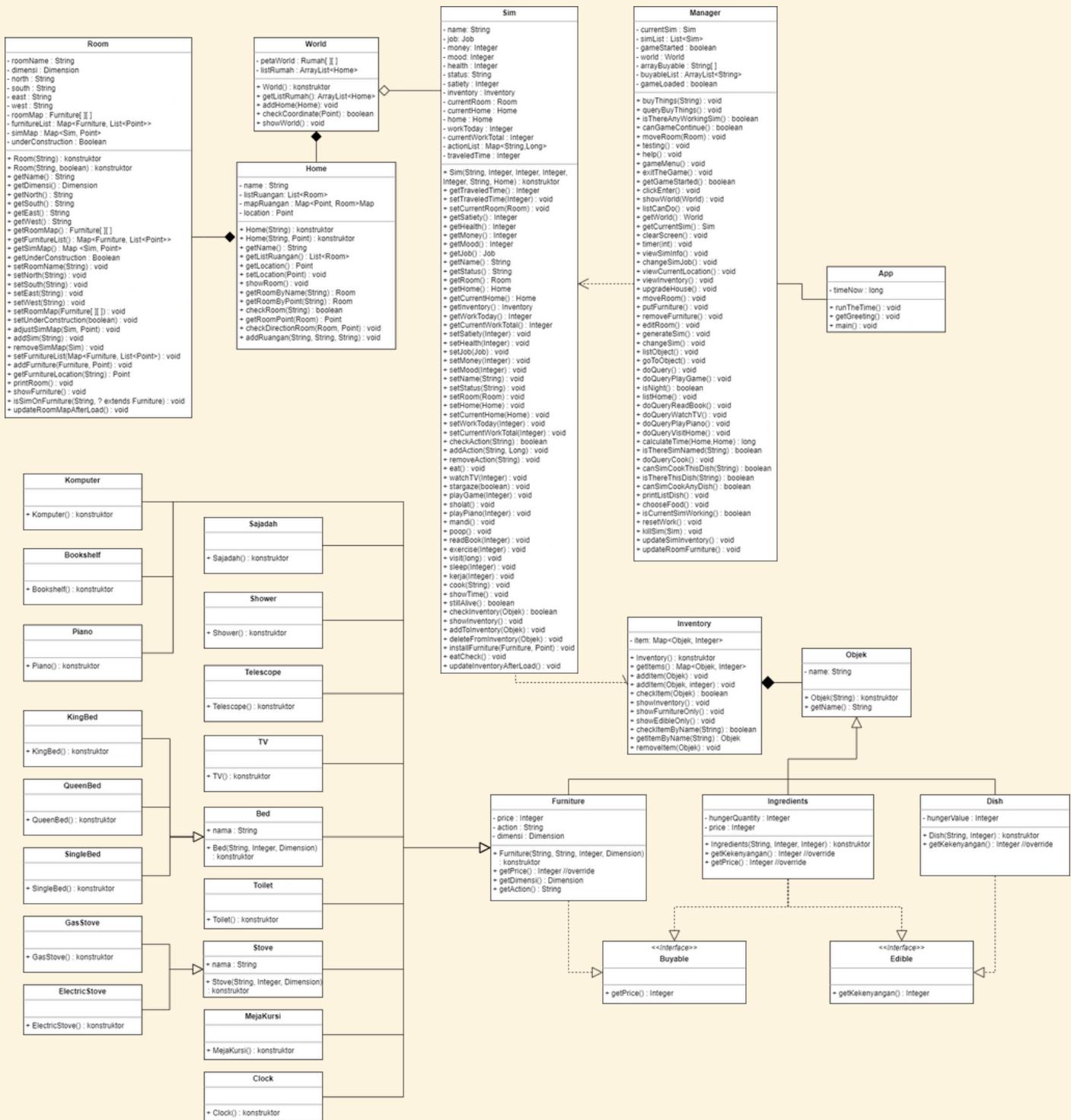
- 
- Class diagram
  - Source code Class Sim, kesejahteraan, methods masak, pindah rumah, inventory
  - Testing program
  - Booklet





# FINAL STRUCTURE

We utilize a **class diagram** to visualize the existing classes in our program, along with its variables, methods, and the correlation between one another.



# OUR JOURNEY THROUGH MILESTONES



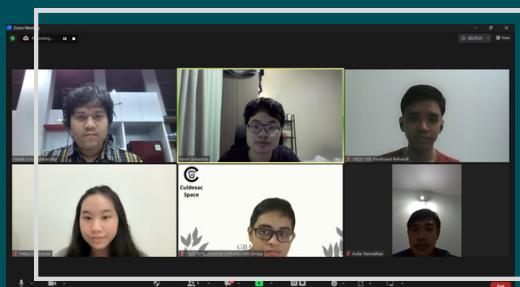
11.04.2023

On this day, the specifications for Sim-Plicity was released. People were pretty shocked.

We gathered around to discuss the work distribution, which led us to:

[bit.ly/TaskDistribution07](https://bit.ly/TaskDistribution07)

12.04.2023



We did our first **asistensi**, which gave us more insights on our class diagram.

17.04.2023

END OF MILESTONE 2

06.05.2023

After a long journey of hard work, we can finally say goodbye!

28.04.2023

We continued our progress individually, and did our second asistensi.

END OF MILESTONE 1



We held another team meeting to align our thoughts while wrapping up our diagram.

18.04.2023

# DESIGN PATTERN: **SINGLETON**



1

## Definition

A creational design pattern that lets you ensure that a class has only one instance, while providing a global access point to this instance.

2

## Real-World Analogy

The government.  
A country can only have one official government. The title "The Government of X" is a global point of access that identifies them.

3

## Pros

- One class only have one single instance
- Gain global access point to that instance
- Object is initialized only when requested

4

## Cons

- Violates the Single Responsibility Principle
- Can mask bad design
- Requires special treatment in a multithread environment

5

## Application

- Used when a class can only have one single instance available to all, and when a stricter control over global variables is needed.
- In Sim-Plicity, Singleton is applied on World.

# EXIT



3 hard weeks have passed, safe to say we will **not** miss working on Sim-Plicity! Please enjoy our game and booklet, we worked really really hard for it. All our members now look like Frankenstein. Which method will you be picking?

Give maximum grades.

Give maximum grades.

Give maximum grades.