

Final Project Proposal

"The Life of a Human"

Elon Musk frequently states that life is a computer simulation. To provide evidence for this bold claim, this project will simulate the life of a human from birth to death. The human shall go through childhood, adolescence, and adulthood unless death comes early. The user will be able choose what events and actions the human will take, including the human's lifestyle(Druggie/nerd/athlete ** lifestyle can be changed by the user upon input); however, there will also be events which occur outside of the user's control(e.g. car accidents, etc.). The simulation will not account for gender.

General:

- Abstract class: *Human*
- Executable class: *Woo*
- Subclasses(Human) :
 - *Child*
 - *Teen*
 - *Adult*
- Interfaces:
 - *Druggie*
 - *Athlete*
 - *Nerd*
- Additional classes:
 - *Events*
- Imports:
 - `Keyboard.java`
 - `java.util.ArrayList`

Class Description:

- *Human:*
 - The basic human characteristics:
 - Name
 - Age
 - Health
 - friends(arraylist)
 - General human actions:
 - Sleep (abstract)
 - Make friends
 - Die
 - Grow up (abstract)

- Bully(abstract)
 - sex
- *Child, Adult, Teen:*
 - Implements abstract methods
 - Implements methods from interface
- *Druggie:*
 - Interface which details all the actions a drug addict takes
 - takeDrugs()
 - dealDrugs()
- *Athlete:*
 - Interface which details all the actions an athlete takes
 - exercise()
- *Nerd:*
 - Interface which details all the actions a nerd takes
 - study()
- *Events:*
 - Reads from events file given the type of event(e.g. Going to hospital, school, etc.) and returns dialogue
 - To be called in subclasses of Human

Stretch:

- Switch statements
- Reading a file to handle dialogue
 - Example: hospitaltext.txt
 - a file to hold all the dialogue that occurs in a hospital
 - Each row is a different dialogue

To-Do List:

- Write child, teen, adult specific methods and implementations of interfaces
- Text documents for dialogue
- Events class to read dialogue
- Switch statements to handle user decisions
- Handle user input and check for validity

Concepts:

- Inheritance
- ArrayLists
- Iteration
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Timeline:

- By 1/6/17- Planning Phase:
 - Finish UML diagram
 - Create Github repo
 - Overwrite .gitignore config file

- Create all the java files necessary (push them to repo)
- Create devlog (push to repo)
- Establish which APCS concepts will be used
- Create Woo.java

- On 1/8/17- First Dojo Meet:
 - Add methods to the classes as necessary
 - Work on hashmaps (stretch)
 - Make the correct changes to the classes (abstract, interfaces, hierarchy)
 - Expand on the stretch
- On 1/10/17- Second Dojo Meet:
 - Work on the interfaces
 - Establish how the interfaces will interact with Human.java
 - Work on dialogue alongside the interfaces
 - Work on Events.java
- By 1/13/17- Interfaces And Events Complete:
 - Finish interfaces
 - Finish dialogue for the interfaces
 - Finish Events
 - Finish Hashmaps
- On 1/17/17- Third Dojo Meet:
 - Work on Child, Adult, Teen
 - Work on dialogue along with Child, Adult, and Teen
- By 1/20/18- Finish Project:
 - Finish all the coding
 - Make sure it compiles
 - Fix small errors
 - Play through it multiple times