Readme
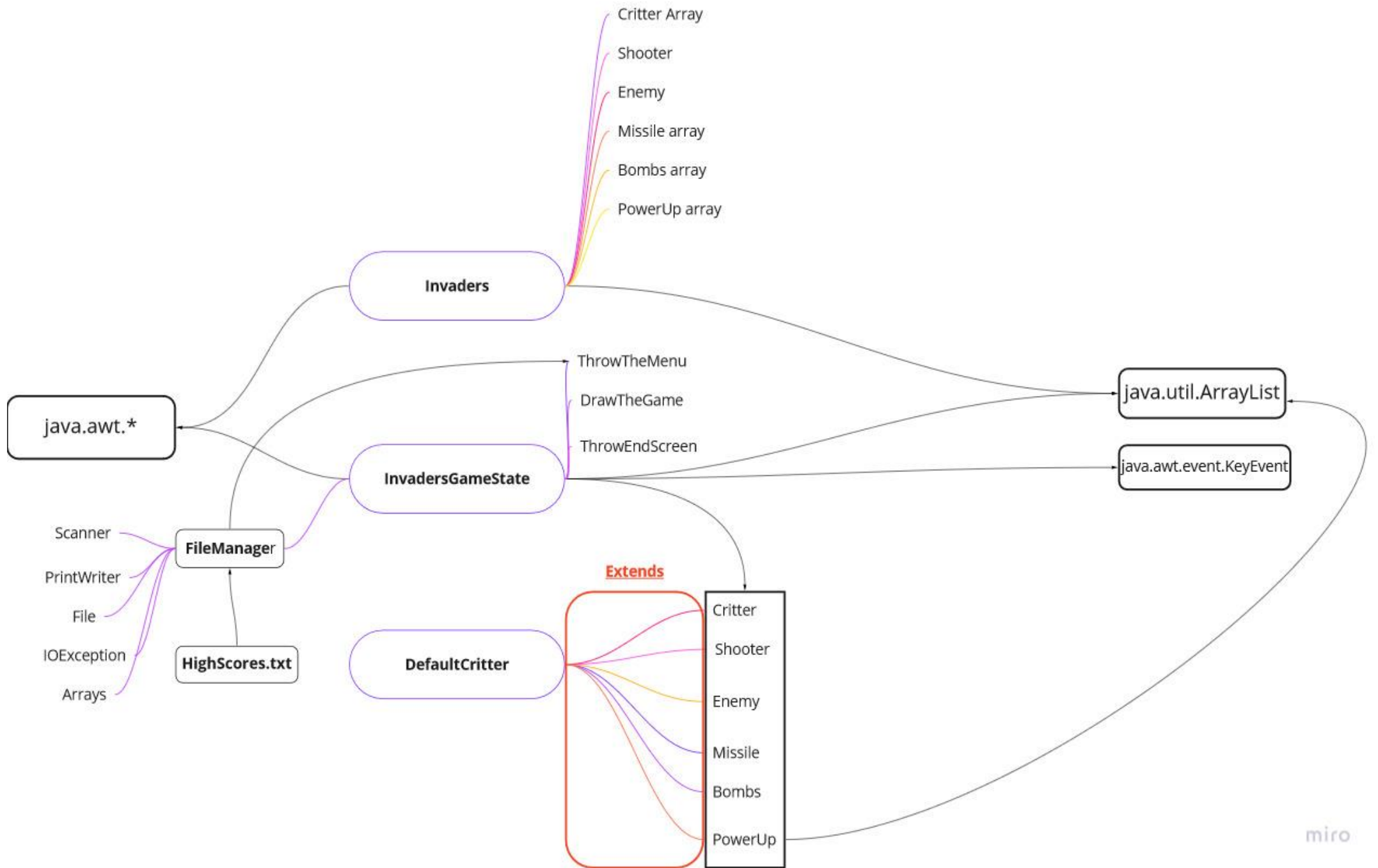
1. The invaders.java file needs to be compiled.
2. The DefaultCritter class contains all the default get and set functions called by subclasses, for example getting the x coordinate and speed in the x direction for Missile is done by calling getX(), A function in DefaultCritter, but inherited by Missile.
3. Most of the classes extend DefaultCritter and contain its default values like x, y, speeds and size while adding their own fields like hitpoints.
4. Changes:
   - Added better graphics in the form of a background and Pictures used as character models
   - Added levels
   - Added Enemy (different from critter) That can only be killed after the critters are destroyed
   - Enemy has hitpoints based on level
   - Critters increase based on level
   - Enemy drops bombs (can attack) on predetermined chance
   - Shooter has lives
   - Added Power ups
   - Added sound for shooting, killing bombs and dropping bombs
   - Added a space in DefaultCritter where the default speeds and other aspects of the game can be changed.
   - Added music in the background
   - Added bunkers
   - Added second player and option to disable with menu animation
   - Added High Scores page

Images for characters:

Shooter:

https://publicdomainvectors.org/en/free-clipart/Top-view-of-supersonic-aircraft-vector-clip-art/11866.html
Public domain

Critter:

https://freesvg.org/funny-green-monster
OpenClipart
SVG ID: 67049
License: Public Domain

Bombs:

https://pixabay.com/vectors/nuclear-warhead-bomb-atomic-weapon-36817/
Picture of bomb, slightly modified
Pixabay License
Free for commercial use
No attribution required

Background:

https://www.publicdomainpictures.net/en/view-image.php?image=270151&picture=cosmos-background

License: CC0 Public Domain

Fast forward

Image by Clker-Free-Vector-Images from Pixabay
https://pixabay.com/vectors/fast-forward-action-arrows-arrow-27916/
Pixabay License
Free for commercial use
no attribution required

Bullseye

https://www.needpix.com/photo/download/31037/target-circle-bullseye-achievement-competition-shot-sport-goal-center
Clker-Free-Vector-Images (pixabay.com)
Free for commercial use
No attribution required

Sounds:

Bomb Hit
https://freesound.org/people/RSilveira_88/sounds/216273/
https://creativecommons.org/licenses/by/3.0/

Shooting of missile:
https://freesound.org/people/MusicLegends/sounds/344310/
https://creativecommons.org/licenses/by/3.0/

Dropping of Bomb:
https://freesound.org/people/MATTIX/sounds/415990/
https://creativecommons.org/licenses/by/3.0/

Background music:
https://opengameart.org/content/loading-screen-loop
License: CC0 Public Domain

Some parts of the code were auto-inserted by IntelliJ IDEA, the IDE used. Mostly Set and Get commands

All sounds were modified, to make them slightly softer, using audacity

Other sources:

https://www.w3schools.com/java/java_arraylist.asp
Used to find out how arraylists work and how to implement them.

https://miro.com/app/
For drawing the diagrams

https://stackoverflow.com/questions/19844649/java-read-file-and-store-text-in-an-array
Example by user https://stackoverflow.com/users/1005102/utku-%c3%96zdemir

And https://stackoverflow.com/questions/19788989/error-unreported-exception-filenotfoundexception-must-be-caught-or-declared-to
For File not found
By user https://stackoverflow.com/users/2936460/sqb

http://zetcode.com/java/createfile/
To make sure you can make a file

https://www.daniweb.com/programming/software-development/threads/281973/printing-out-a-2d-array-into-txt
For printing to a file

https://www.tutorialspoint.com/java/util/arrays_sort_double.htm
For sorting arrays using built in library