

# Implementation

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## **Implementation Report**

To code the game we used the libGDX framework which is licensed under apache 2.0, This allowed us to use it for commercial or private use, and modify and distribute the source files. Also falling under this licence was the libGDX texture packer software that we used to help create visuals for the game. We have honoured apache licence 2.0 by including a file in the software containing the copyright of the licence as well as the licence itself.

We have also added a file with the Eclipse public licence version 1.0 to the game as suggested by JUnit. We used JUnit to produce the unit tests to ensure the functionality of the game. In addition, we added a file with the Eclipse public licence version 2.0 since this licence was used by Jacoco. This automatically runs all of the unit tests whenever we push to the main branch.

Another 3rd party software we used for the game was GIMP, which is a software used for creating our sprites and images. After we created individual images using GIMP, we would then translate them into atlas files which were then built using gdx-texturepacker - a utility tool for LibGDX to create atlases for the game. These atlases allowed us to combine all the sprites into a single texture. After looking at the visual assets available online, we decided to draw our own pixel art for the entirety of the game, including the tiles for the map, the chefs, and the ingredients for meals. The whole group were happy with the art drawn and we didn't need to worry about any of the licensing required if we had chosen to use assets obtained from the internet.

We also used Tiled, a 3rd party licensed software which falls under the GNU general public licence. We used it to create a tile map for the game and it also helped us detect collisions. It helped us make the map more accurate and also supports scaling. In conclusion, the implementation stage was a significant component of our project and allowed us to transform our ideas into an useful and entertaining game. We met the licensing specifications of the LibGDX framework, GIMP and Tiled, allowing us to utilise these resources for free in our game. In conclusion, the implementation phase of our project was a success, thanks to the use of various tools and software.

We have managed to fulfil all the specified requirements in this project.