UI design:

We started our project with a very basic UI. The walls of the maze in the game were just squares and the pacman and ghosts were simple circles of different colors drawn using fillOval and fillRect functions. The framework of the maze is made using a 2D matrix which is initialized with 1s and 0s. The walls are constructed by drawing squares in place of 1s and pellets in place of 0s. Once the pacman eats a pellet the 0 is replaced by -1 indicating empty path.

Once we were done with main functionality of the code we decided to improve the UI by replacing the circles and squares with images. We replaced the fillRect and fillOval functions with drawImage. Note that the pacman turns its face in the direction it moves so different images are displayed for pacman according to the direction pacman is moving. We tried various different types of mazes and images and finally settled with the one on the right as we believed that this provides a better user experience and is a good balance of difficulty for both the pacmans and the ghosts.

