Software application:

This application intends to improve the robot's functionality and employability in the restaurant, to allow the robot to greet the customer when they visit the restaurant, take customer order and verify if the dishes are available, compute the total price and send farewell messages.

Files introduction:

All the text files which store information to communicate with the customer are put in the Files directory, all the source codes are put in the Codes directory, all Javadocs and user manual are put in the Documentation directory. When running the application, make sure that the Codes and Files directory are put in the same directory.
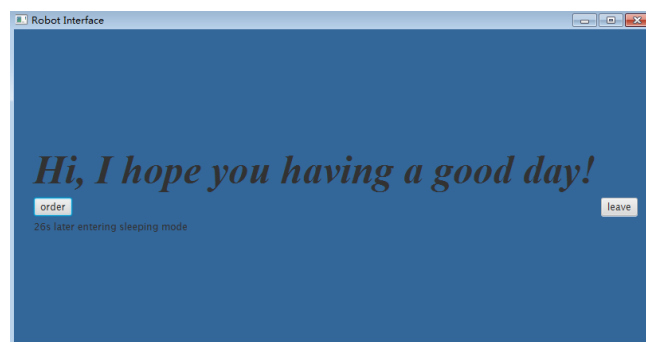
Software launch:

After compiling all the source codes in the Codes directory, we can start the application from command line through "java RobotInterface", as the figure shows below.
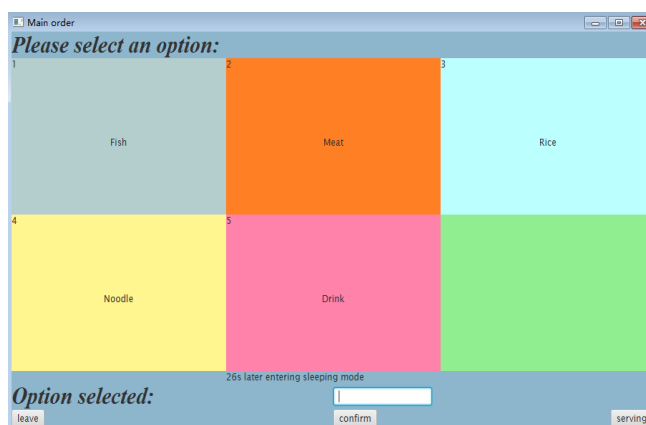

Software overview:

All the GUIs are constructed using JavaFX, there are no special requirements for launching from the command line, but some changes may be needed in the source codes to launch from some IDE.

After starting the application, the first user interface we see is to display the farewell message, the order button allows us to enter the main order interface, and the click on leave button will display a farewell message (the account user interface)

This is the main order interface mentioned above, the confirm button is used to confirm the choice made in the text field, and if the choice isn't available, it will display an error message to ask customer to select again, and the leave button is used to display the total price and farewell message. The serving button is used to ask serving thus telling the joke.

This is the sub-interface showing all the options under one certain type dish. The confirm button is used to confirm the choice made in the text field, and if the choice isn't available, it will display an error message to ask customer to select again, and the back button is used to return to main order.

This interface is used to display the jokes randomly selected from the text file, customer could ask the robot to stop by clicking on the button, and it will return to the main order interface thus the customer can add new order.

Anytime the customer click on the leave button will ask the robot to show the total price that the customer should pay, and the farewell message is randomly selected and showed under the total price. What's more, all the detail information of the dishes ordered will also show in list. Then the customer information would be cleared to enable a new customer visit.

At any user interface, if there is no operation in 30 seconds, the application would automatically enter the sleeping mode, and the customer could click on the wake up button to wake up the robot.