Project Design/Implementation document

Interfaces:

* Opening Screen
  + All recipes are listed for the user to see
  + Add Recipe
  + View Recipe
  + Delete Recipe
  + Search Recipe
  + Edit Recipe
* Recipe View
  + User can see all details of single recipe
  + Edit Recipe
  + Delete Recipe
  + Exit
* Add Recipe View
  + User may enter in recipe data into fields
  + Save Recipe
  + Cancel
* Edit Recipe View
  + User can see and edit all data of a chosen recipe
  + Save Recipe
  + Cancel
* Delete Confirmation
  + User confirms if recipe will be deleted
  + Confirm
  + Cancel
* Search Screen
  + User can search for recipes based on Name Description and Ingredients
  + View Recipe
  + Exit

Target Execution System:

* The app is targeted to phones running Android
* SDK version 15
* ARM and x86\_64 systems

Build Process:

* Self signing keys are generated
* The build wizard starts in Android studio
* Key file and password to key files are supplied
* It will be built in release mode
* Gradle runs and generates an APK file
* Gradle optimizes the code and then obfuscates it using Proguard
* Finaly Gradle takes all the recourses removes the unnecessary ones and puts into one file

Objects:

1. AddRecipeFragment
   * This page allows the user to add recipes
   * AddRecipeFragment constructor creates the object for use in the user interface
   * onCreate sets initial variables for later use
   * onCreateView creates the components and attaches listeners to them
   * onAttach informs us when the fragment is attached to the Activity
   * onDelete is not used, called upon change of Activity and delete
2. SearchFragment
   * This page allows the user to search for recipes
   * SearchFragment constructor creates the object for use in the user interface
   * onCreate sets initial variables for later use
   * onCreateView creates the components and attaches listeners to them
   * onAttach informs us when the fragment is attached to the Activity
   * onDelete is not used, called upon change of Activity and delete
3. HomeFragment
   * This page is the initial screen on start up. It allows the user to access all features of the application
   * HomeFragment constructor creates the object for use in the user interface
   * onCreate sets initial variables for later use
   * refreshHome make changes to interface objects after other fragments update recipes
   * showPopup is used for delete conformation
   * onCreateView creates the components and attaches listeners to them
   * onAttach informs us when the fragment is attached to the Activity
   * onDelete is not used, called upon change of Activity and delete
4. MainActivity
   * This handles all the different fragments and their interactions in the application
   * onCreate sets initial variables for later use
   * onBackPressed closes current menu
   * onCreateOptionsMenu used for debugging to be removed in final release
   * onOptionsItemSelect used for debugging to be removed in final release
   * onNavigationItemSelect handles opening of new fragments
   * onHomeFragmentInteraction handles opening of Home fragment
   * onSearchFragmentInteraction handles opening of Search fragment
   * onAddRecipeFragmentInteraction handles opening of AddRecipe fragment
5. DB
   * Object that points to the local database
   * createDB sets initial variables for later use
   * getDB gets SQLite object
   * getDBFile gets database file
   * dumpRecipes used for debugging to be removed in final release
6. SQLite local database
   * Hold all recipe information
   * For each recipe entry:
     + Name - varchar (returns as string)
     + Description - varchar
     + CookTime - varchar
     + Rating - int
   * Steps table each step points to an individual recipe
   * Ingredients Table each ingredient can point to multiple recipes

[Link to Low Level Design Java](https://github.com/CS3365-01/PocketChef/tree/master/app/src/main/java/ttu/edu/pocketchef) (<https://github.com/CS3365-01/PocketChef/tree/master/app/src/main/java/ttu/edu/pocketchef>)

Host Development Platform:

* Developed using the IDE Android Studio
* Java is the primary coding language
* For testing The Android Phone Emulator was used
* 2,028 lines of Java
* 2,000 lines of layout flies

Software and Licensing:

* Android studio is open source
* SQLite is also open source
* Using Google play store we would be able to release the app to the public