



## **Team 21 - IoT Kitchen assistant for meal & recipe preparation**

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**Client: Annie Lane**

Many amateur chefs often face difficulty when trying to follow along with recipes and updating recipes to their preference in real time. In addition, there are many existing technologies to aid in cooking but none that concentrate them all into an easy to use hub. IoT Kitchen seeks to solve these issues as the ultimate smart cooking assistant for amateur home chefs. IoT Kitchen provides hands free assistance so that chefs can follow recipes as well as update recipes to their own preferences in real time. This is achieved with the help of a user-friendly app interface, Natural Language Understanding (NLU) assistant, as well as several IoT sensors including a scale, thermometer, and measuring cups. The Android app interface will allow users to keep a record of their recipes made on their profile page, and find new recipes by viewing other users' profiles. If a user fails to find inspiration from their friends, they can search our curated recipe database with strategic recipe keywords such as ingredient or dietary restriction. When a user finds a recipe, they can initialize auditory recipe instructions through the NLU assistant. This assistant will help a user step through a recipe or jump to a specific ingredient or instruction. If the user comes across an element of the recipe that they'd like to change, they can vocalize this change to the NLU assistant, which will send that information back to the recipe database and app. Throughout cooking, the IoT sensors will track cooking time, temperature, and ingredients added, providing feedback to the app to update the recipe and to correct a user if they are following the recipe wrong. Combined, IoT Kitchen will make following along to recipe and cultivating new ones easier than ever before.