



GRADE 12 INFORMATION TECHNOLOGY 2018



# *Slice 'n Dice*

PROJECT TITLE: Slice 'n Dice (Digital Recipe Book)

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**Problem identification**

Clearly outlines the current problem/task.

How often have you opened the fridge to blankly look at the food and have no idea what to cook for dinner? What if you knew exactly what you wanted to cook but you had to go find the recipe somewhere amongst your stacks of recipe books and notes and then when you finally found the recipe you had in mind, you realised that you have already had meals with those ingredients in it for the last few consecutive days? What about that recipe that you love but constantly have to convert the measurements because you prefer to measure your milk in millilitres as opposed to cups?

Food keeps the human race alive and because of this, it's always on our minds. What should you eat for breakfast? What about dinner? The problem only magnifies when you're cooking for more than just yourself - should that be a family or a group of friends that you're hosting dinner with. The modern day lives are extremely busy and often lead us to forget about food until our stomachs rumble and we grab something quick to warm up in a few minutes. Home cooked meals can be cheaper, healthier and can strengthen relationships in the house.

*Slice 'n Dice* is an application that will be created to minimise this problem by storing personal and pre-installed recipes in digital format with timers and unit conversion tables. *Slice 'n Dice* will also take a stock check of ingredients in your house and manage your personal shopping list which can be digitally saved or printed for taking with yourself to the shopping mall. *Slice 'n Dice* also presents the user with data about their past made meals, including the dietary nutritional information about these meals, which allows the user to make informed decisions about future meals for a healthier bodily input.

**Report on research**

Extensive research done.

Research is relevant.

Proof of own research and/or  
at least 3 references

**SousChef**

*SousChef* is a community application created for Android and Apple which allows its users to get advice on what to cook based on ingredients that are currently in the user's household.

When using *SousChef*, the user will send an image of what ingredients they have in their fridge or cupboard to the application and 1000 cooking experts will receive the image and get to work on sending recipes that can be used with the household ingredients sent in the image. The recipes can be in written instruction form or even video tutorials. Should you feel unsafe sending pictures of your fridge to the application, you can also type in what ingredients you have in a message form from which the cooking experts will send you recipes for. *SousChef* is a social application so you can view what other people are asking about their ingredients as well.

The perks of a system like this is that the recipes are constantly kept up to date with new recipes and will always be top quality recipes as they come from a professional team of cooks. Personally, I would prefer for my application to be focused on personal recipes and digitalising recipes that the user already has. I will, however, include recipes that are pre-installed with my application so the user doesn't feel like they are faced with an empty sandbox and that *they* have to make the application

effective. Essentially my application will stand as a place for people to keep their own recipes in digital format and optimise their cooking by having unit conversion tables and timers built in.

*SousChef* markets the idea of sending an image of your fridge to the application which won't be possible with my application as my application is intended for use on a PC and not a mobile device as *SousChef* is intended for. I shall therefore have a section where the user can personally enter in the current household ingredients and my application will then keep stock of what ingredients the user has and keep a shopping list available for the user based on recipes they want to make.

*SousChef* and my application, *Slice 'n Dice*, will both have in common the idea of knowing the ingredients that are currently in the household and providing recipes that the user can make.

Souschef. 2018. *Souschef*. [ONLINE] Available at: <http://souschefmobile.com/>. [Accessed 23 February 2018].

### **My CookBook**

*My CookBook* is an application which can be accessed on the internet or your mobile Android or Apple device and allows the user to create a personal digital cookbook by gathering recipes from the web or importing their own recipes.

Once you have a *My CookBook* account, you can use their search engines to find various recipes on the web which *My CookBook* supports. *My CookBook* also allows the user to import their own recipes should they be saved in the correct format. From here the user can then access all saved recipes from their *My CookBook* account should that be through the application or online. *My CookBook* also supports meal planning which will help the user plan their future meals and create shopping lists if they so desire.

In my own application, I would like to give the user the ability to import their recipe methods via text files. *Slice 'n Dice* will allow users to search through their own recipes but not to search recipes online like *My CookBook* supports. The recipes listed in *Slice 'n Dice* will also be sorted and filtered to allow the user to quickly get to making the meal and less time focused on deciding on a meal. Just as *My CookBook* supports meal planning and shopping lists, *Slice 'n Dice* will support an analytical section which will aid the user in deciding what future meals they should have and set up shopping lists based on this information in tandem with the information about current household ingredients.

Various *My CookBook* features are similar to the features that *Slice 'n Dice* will have so a similar understanding between the applications is present.

My CookBook Online. 2018. *My CookBook Online*. [ONLINE] Available at: <https://www.mycookbook-online.net/en-gb/home/#plan>. [Accessed 23 February 2018].

### **Discussion with Jaime Cooper**

The following statements have been confirmed during an interview (J Cooper 2018, personal communication, 15 February).

In a discussion with Jaime Cooper, the following has been noted as advice towards what the target market would like with an application such as *Slice 'n Dice*.

It was found that the idea of being able to see what meals you have eaten and when would be useful as it would then be possible to keep your nutritional intake diverse and keep food new and exciting for yourself. It was also found that it would be preferable to see the method of the recipe as a whole and not as single steps as this allows the cook to scan ahead in the recipe and prepare better for future steps in the recipe.

Jaime owns many cookbooks and recipes and liked the idea of being able to compile all of the recipes into an application which she can easily search through her recipes and manage her ingredients in household stock so she won't be caught off guard when cooking and realising that she's missing an ingredient or two. The idea of creating a shopping list based on future meals also received positive feedback.

#### **WHAT will the system do**

Clear description covering all detail.

The user will be welcomed by a splash screen with the *Slice 'n Dice* logo when the application starts up. The user will then be confronted with the welcoming screen which will have four available categories to access - Recipes, Inventory, Analytics and Shopping List.

Within the Recipes category the user will have the separate food categories of Breakfast, Lunch, Dinner, Dessert and Drinks presented as tabs. A tabbed selection will filter the viewer to only show recipes loaded in the application which match the selected tab filter. These recipes will be ordered by the further on-screen filter where the user can filter on alphabetical, serve count and cook time. The screen is in half with the left half of the screen displaying six recipes per a page as a viewer and the right side of the screen displaying a preview of the selected recipe for the user to quickly check what the recipe might entail for them. The recipe list also has a top bar which allows the user to search for a certain recipe, view the selected recipe, edit the selected recipe, delete the selected recipe from the application, add a new recipe to the application or add ingredients to the user's shopping list based on the ingredients required in a selected recipe.

Should the user decide to view a recipe: The recipe will be opened and display a picture of the meal, the name, ingredients, method, serve count, timer and a stock check section. The user has the option here to view the unit conversion table where values can be entered and converted should the user wish to convert from the metric system to the imperial system or vice versa. The timer will be able to be started, stopped or adjusted for a new amount of time. Should there be no timer required for a recipe, the timer section will be replaced by the *Slice 'n Dice* logo. The stock check section will display all ingredients which the user currently has in stock which makes it easy for the user to adjust their current stock when making a meal if a certain ingredient is used up after making a meal. When the user clicks on "Meal Complete", the application will save data about what meal the user just made and on what date. This data is used in the analytics section.

Should the user select a meal which they would like to add to their shopping list, a form will pop up displaying the ingredients needed to make the recipe from which the user can then manually enter what ingredients they want to add to their shopping list and their appropriate quantities.

Should the user select to add a new recipe: The user will be presented by a screen where they can enter a name, the list of ingredients, method, serve count, total cooking time, recipe type and adjust the timer to suit the recipe. An image of the meal can also be imported to be displayed and the recipe's method and ingredients can be imported via a text file. The "Edit" form as oppose to the "Add" form is the same except that data of the selected recipe to edit has already been filled into their appropriate fields for the user to edit.

Within the Inventory category from the home screen the user will be presented by categorised ingredients which can be ticked off in a checkbox as being present in the household. Should there be ingredients which the user never uses, these ingredients can be deleted from the Inventory section. Should there be an ingredient that the user wants to be added but isn't present currently within the Inventory section, the user can add the ingredient by filling in the appropriate data in the pop up screen (ingredient name and type).

Within the Analytics category from the home screen the user will be able to see what meals were eaten when and how these meals affected nutritional information which will be displayed as a graph. The user will also have a "goal" graph from which they can compare how they would like their nutritional information to look as oppose to how it actually looks. From this data, the user can then make informed decisions about what meals to make in the future.

The Shopping List section also allows the user to access promotions currently active at *Pick n Pay* and *Woolworths* in case this affects what they decide to eat.

#### **HOW will the system be used**

Clear description covering all detail.

*Slice 'n Dice* will store recipes in digital format. There will be some pre-installed recipes and *Slice 'n Dice* will allow users to import their own recipes and edit or delete all recipes in the application. The recipes will be categorised into the separate food categories of Breakfast, Lunch, Dinner, Dessert and Drinks.

*Slice 'n Dice* will contain unit conversion tables and have a timer within the recipe to manage cooking the meal without having to leave the application or own a separate physical timer.

*Slice 'n Dice* will store details on all ingredients in the household and use this data in tandem with meals which were eaten to build analytics information for the user. Should the user want to make a meal of which there are missing ingredients - the user can add the missing ingredients to their shopping list which can be printed or saved digitally.

*Slice 'n Dice* will keep track of what meals were eaten when to create data which the user can view and make informed decisions on their future meals from. This data will also present graphs of what the user would like for their nutritional intake to look like and what their nutritional intake actually looks like. This can aid the user in deciding how they can adjust their diet to improve the quality of bodily input.

*Slice 'n Dice* will hopefully aid users in better use of home recipes and improve the quality of food that they put into their bodies.

**WHO will use the system**

Clear description covering all detail.

*Slice 'n Dice* will be used on a non-commercial level to allow everyday people to make healthier meals at home for themselves, family and friends. *Slice 'n Dice* is aimed at people making personal meals who would like to make use of their unused recipes or who would like to try new recipes to keep food exciting for themselves. *Slice 'n Dice* is also intended for the person who is looking to save time while making healthy homemade meals.

*Slice 'n Dice* is unlikely to be used by people in poorer communities. *Slice 'n Dice* will be used by people who have experience with technology and by people who don't have too much technical experience which means it needs to be designed in a user friendly manner for both types of users. The user would be someone who is making the meal; that can be any person aged 8 years to 88 years who is happy to get in the kitchen and make a meal for themselves or family/friends. Older people are likely to be less keen on using technology for their cooking aid and would probably prefer to stick to their old methods of books. This brings the target market age to about 8 years to 50 years. People of all sexes and races would use *Slice 'n Dice* as everyone requires a meal and the only limit on the user is access to technology and willingness to cook with a digital aid. The application comes with pre-installed recipes but the aim is also to get users to upload their own recipes so attention should be focused on users who want to add their own recipes for future reference. The application is also hugely effective with its analytical section and is therefore extremely useful to someone who wants to manage their dietary input, such as a sport fanatic or someone who is on a diet.

*Slice 'n Dice* is not intended for use by restaurants, professional chefs or other commercial level cooking although the application can be used by these people should they see it effective in improving their performance.