# CS3072/CS3605 Final-year Project: Task 1 - Project Synopsis

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| **Student** **Number** | 1513449 | **Supervisor** | Ms Annette Payne |
| **Programme** | Computer Science | **Specialism** | Software Engineering |
| **Provisional Title** | System guiding what NOT to eat-based on individual Health factors. | | |
| **Problem Definition** | | | |
| Obesity, Diabetes, Gout, Tension, Hypertension are some examples of side effects caused by eating  Food items harmful for your body and not eating what is necessary for the body. For ex. If your body has 92 heartrate, high sugar, low salt, then you should not be eating much Rice. These type of problems which we face daily have no solution and when our health goes out of our control, we visit hospital. The root cause is the food we eat which we shouldn’t. | | | |
| **Aims and Objectives** | | | |
| To develop an Android application with a UI in which user inputs level of some factors contributing to human health for ex: Blood Sugar Level, Carbohydrate Level, Heart Rate, Glucose etc. and having taken these as inputs the System/app displays a list of things the user should NOT eat based on that data. The result will be calculated using Java and displayed using xml. | | | |
| **Background Sources** | | | |
| 1. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/551352/NDNS_Y5_6_UK_Main_Text.pdf> NDNS UK analysis shows the consumption of food items resulting in obesity as per source B. 2. <http://digital.nhs.uk/catalogue/PUB30113> shows analysis of diverse effects of food on health. 3. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/551352/NDNS_Y5_6_UK_Main_Text.pdf> The findings for the NDNS RP Years 5 and 6 (combined) are compared with the UK recommendations for food and nutrient intakes. Current UK recommendations for consumption of fruit and vegetables, red and processed meat and oily fish are shown in table A. 4. Other systems/website/medium which guides/shows what NOT to eat is when you enter a particular condition and not based on your health as an individual. 5. This android application will I believe make a difference in the lives of people solving a lot of problems moreover preventing them. | | | |
| **Approach** | | | |
| To develop the android application, a prototype will be a good mediator to explain and justify the use-cases. Initially a prototype will be submitted taking in consideration, above noted issues and once approved, the front-end will be finalised graphically.  With the help of Diet consultant, a set of conditions will be prepared for ex: users with high blood sugar should NOT eat sweets/rice etc. Using Java will then integrate it with the app.  Once the back-end is developed, it will be integrated and aligned with the front-end and meanwhile it will tested using Black-Box and White-Box testing methods.  An ethics approval formal agreement/Feedback form will be prepared within the application to take user approval for processing data to the government. | | | |
| **Evaluation** | | | |
| The android app will take a huge role in revolutionizing the Food Industry and prevent the users against diseases and careless food intake.  If the app displays what to eat on the basis of a certain input, it pretty much serves its purpose.  The conditions from Diet Consultants will be generic and subject to government approval. | | | |