4.1**Introduction** .

Systems design is the process of defining elements of a system like modules, architecture, components and their interfaces and data for a system based on the specified requirements. It is the process of defining, developing and designing systems which satisfies the specific needs and requirements of a business or organization.

Design methods:

1) Architectural design: To describes the views, models, behaviour, and structure of the system.   
2) Logical design: To represent the data flow, inputs and outputs of the system.

3) Physical design:

It has the steps to explain it.

a) How users add information to the system and how the system represents information back to the user

b) How the data is modelled and stored within the system.

c) How data moves through the system, how data is validated, secured and/or transformed as it flows through and out of the system.

4.2 **System design**

System design is the process of defining the architecture, modules, interface and data for a system to satisfy specific requirements

Modules- are parts that can be used to construct a complex structure

Interface- A program that enabling a use communicate with a computer

• From homepage the end-user will have to enter their login details. The login file will load the information into the database system to valid the information exist within the system. If not, it will deny access and return the user back to the homepage.

• If entered login information is correct, the system will allow the search via text input or image for specific blood type required.

• Submission of searched details will be saved into the database.

• Save uploaded data into the database then after the this process it will display t the user the information desired.

4.3 **Architectural design system**

**Architectural design hardware.**

Level 1 Level 2 level 3

http request, files, sql,…

Sending replies

Client application database

server server

**Architectural design network.**

External network Internal network

Client firewall loadweb application database servsers

Balancer Serverserver

**Architectural Design**

First class diagram.

First SQL functions

-Insert Food ($ fooding-url, $ fooding-size, $ fooding-tmp-name, $ food-id, $ target-group, $ blood-type, $ benefits.

-Select account ($ table).

-Select gym ($ table).

-Select hospital ($ table).

-Select Rehabilitation ($ table).

-Select specific ($ blood-type, $ target-group).

-Delete food ($ table , $ where).

Second class diagram.

Clear variables

-$ User variable (string).

-Clean ($ user variable).

4.4 **Physical design.**

Login username and password.

-Upload image and data.

-View list.

Database

Homepage.

Load data from database

Return to home if the data

doesn’t exist.

Form submit.

Display stored

4.5 **Database design.**

Database (diet).

Food

-Food-id (primary key).

-Food-img-url (string).

-Target-group (string).

-Blood-type (string).

-Food-type (string).

-Benefits.

Accounts

-Account-id (pick).

-Fname.

-Iname.

-Email or phone.

-Gender.

-Password.

4.6 **Program design.**

Home page

Home page

Login details

Correct details

Enter blood type/specific food for blood type

Return to homepage

No

yes

Get results

Log out

4.7 **Interface design.**

**Input design.**

**Output design.**

**Menu interface design.**

4.8 **Security back up design.**

For security concern, If the system crashes the information for backup will be saved in the server. So the server is the one which we will be using for backup purpose and it will be more safer because all our information will be there and no one will be touching or accessing in the server except us as the administrators of this software.

PHASE 4