



**Kenyatta University**

**Department of Computing & Information Technology**

**SCO400: Project Solution Design**

**Title: Hotel Management System For Chicken-Land Pilau Hotel  
Kasarani With Sentiment Analysis**

**Reg. No:** J17/0678/2018

**Name:** James Muturi Mwangi

**Project Supervisor:** Dr. Abraham Mutua

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## Introduction

This document outlines the design principles of the final product. It comprises of the design process, data formats, data processing and interface design prototypes.

## 1. Solution Architecture Design

The final system will have the following components;

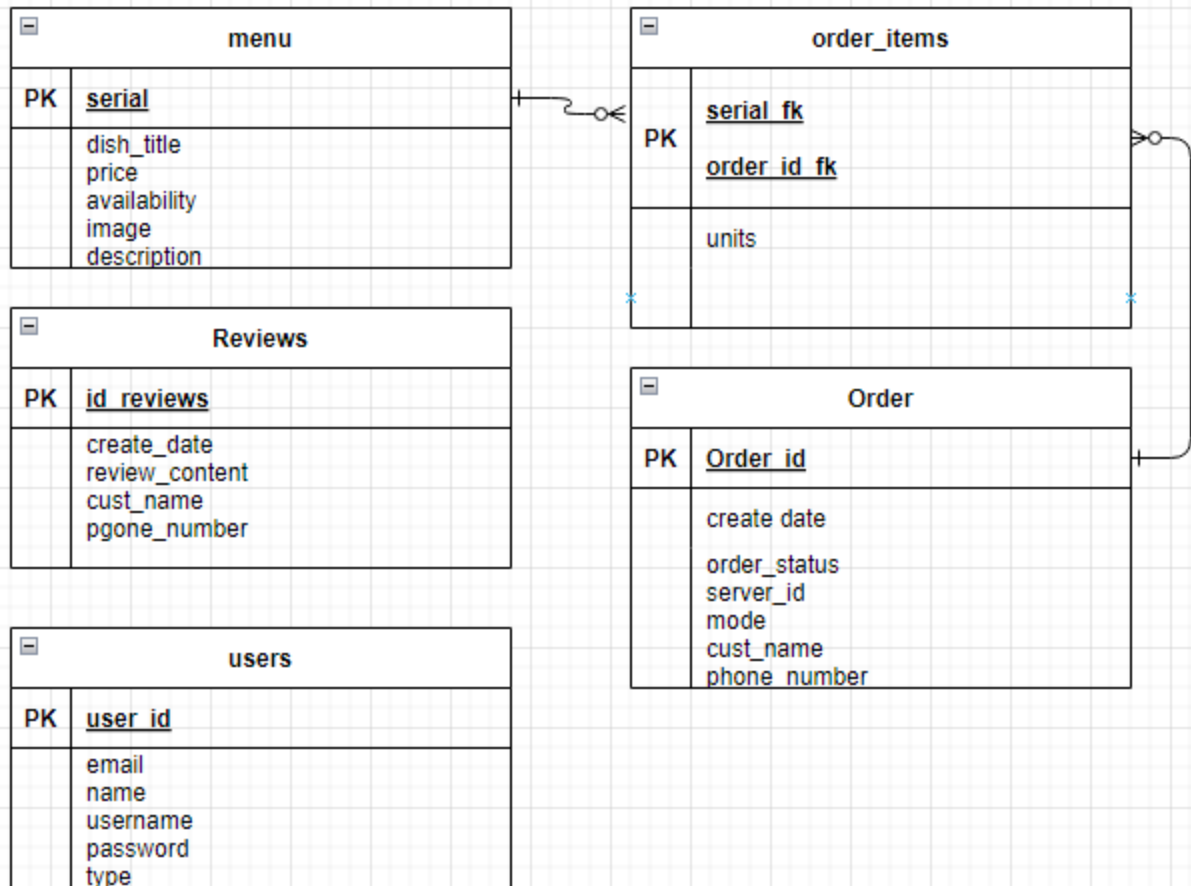
- a. Data stores
- b. Web application made up of:
  - Dashboard
  - Sentiment analysis page-enable by a VADER PHP package
  - Manage orders web page
  - Online Menu
  - Reviews page

### 1.1. Data stores

The systems uses a relational database model and MySQL Workbench as the relational database management system. The database consists of five tables. These are:

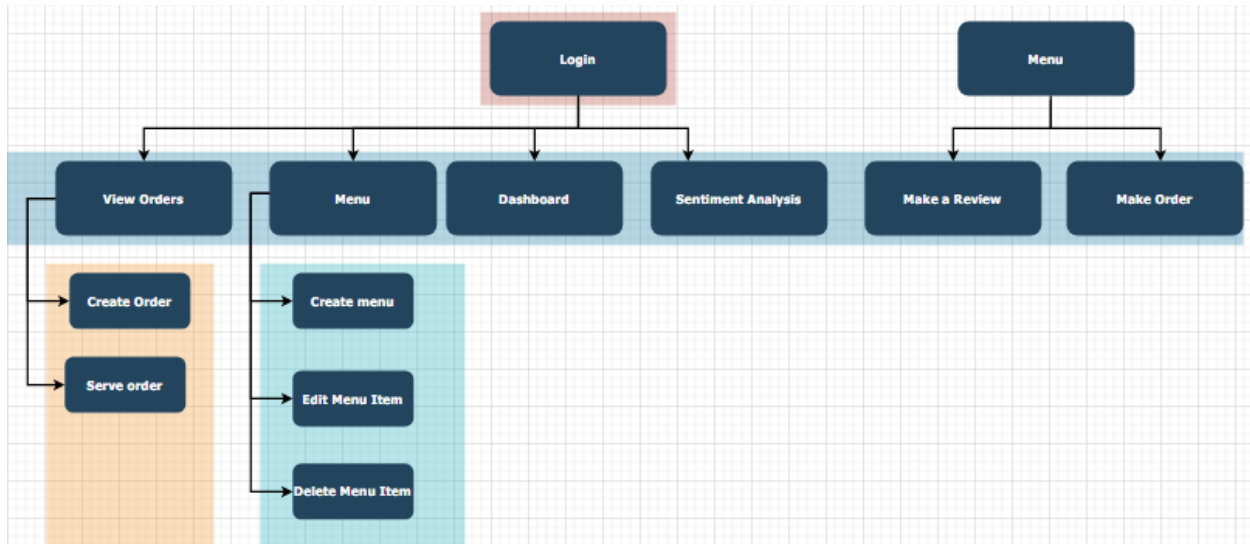
- Users
- Reviews
- Menu
- Orders
- Order items

The table ‘order items’ emerges as a result of the many to many relationship between orders and menu. Shown below are the entity relationship diagrams for the system. Under “order\_items” table the primary key is a compound one. It is made up of the foreign key for menu item and the foreign key for order which is ‘order\_id’



## 1.2. Web application

The web application provides an interface for input and output of data while also providing the business logic required to analyse and manipulate the data in the database. Below is a site map for the web application. Navigation for the hotel workers and the admin begins on the login page. Customers do not have to login, instead they are provided with a link to the menu which in turn provides a link the create order page and the make reviews page.



## 2. Process design

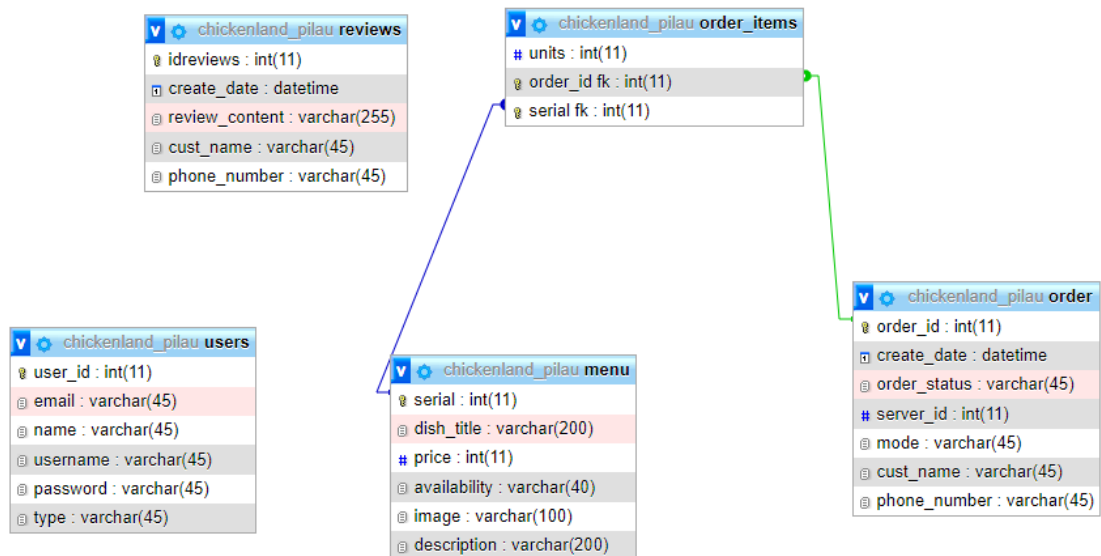
The new system adopts features of the manual system but in an electronic format. The process begins with the starting of Apache HTTP server and MySQL Maria DB server using the XAMPP software. The business logic is written in PHP and this is interpreted by the XAMPP platform. The starting of HTTP server enables the running of the web pages and makes them available on the local host.

As shown above, the login page is the entry for both admin and workers while the menu page is the home page for customers. Customers are able to view the menu and if interested use a link provided to navigate to create order page which enables them to create and pay for order. On creation of an order, the admin and waiters are able to view details of order on the view orders page and from here have a choice to serve order. Orders can be in one of 3 status; pending, completed or cancelled. Every order not served at end of day is cancelled. The customer is also granted the opportunity to leave a comment on the system. The hotel admin has the ability to

access dashboard to view performance and also perform sentiment analysis on the sentiment analysis page.

### 3. Database design

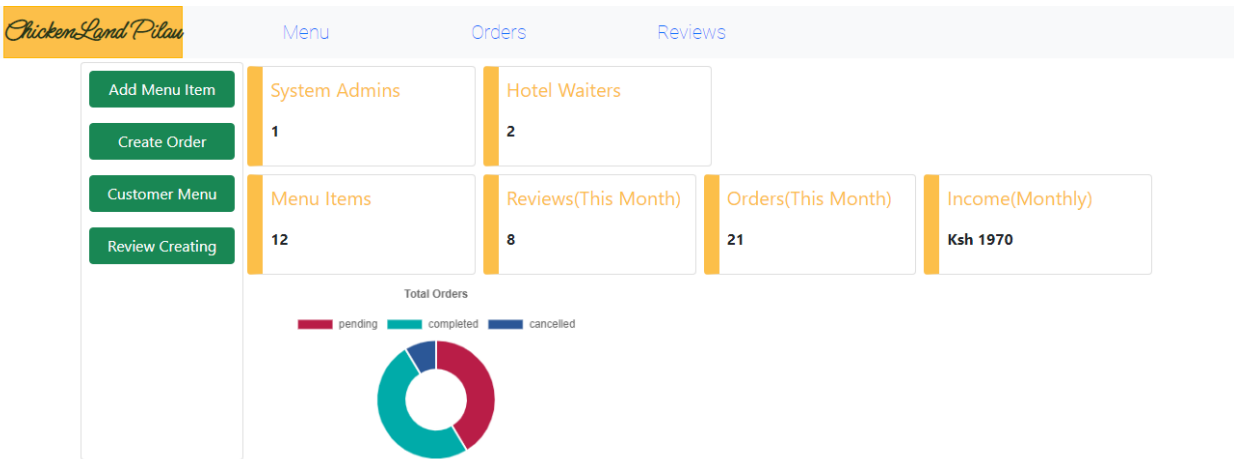
The database used for the system is Maria DB on the XAMPP platform. The following shows a relational view of the database and the tables as created in the software. It also shows details of datatypes used for every attribute.



### 4. Interface Design

The interface design of the system follows the sitemap shown above. The following are some of the interface prototypes of the critical pages of the system.

The web application has a dashboard as shown below:



This is the page that is displayed to the admin on logging in.

The page to view orders is as follows:

**ChickenLand Pilau** | **Menu** | **Orders** | **Reviews**

**Create Order**

Created From: 01/11/2022 | Created To: 21/11/2022 | All | Go | Mpesa Ksh | Cash Ksh

Order No.	Date	Value	Customer	Contact	Status	View
80	2022-11-14 15:10:18	180	James	745200415	Completed	<a href="#">Serve</a>
79	2022-11-14 14:53:48	300	James	745200415	Completed	<a href="#">Serve</a>
78	2022-11-14 11:46:21	120	James	745200415	Completed	<a href="#">Serve</a>
77	2022-11-14 10:16:38	150	James	745200415	Completed	<a href="#">Serve</a>
76	2022-11-14 10:11:38	270	Louis	719440705	Completed	<a href="#">Serve</a>
75	2022-11-14 06:28:37	90	Denice	114516980	Completed	<a href="#">Serve</a>
74	2022-11-14 06:27:50	90	Lucy	707845386	Completed	<a href="#">Serve</a>
73	2022-11-13 21:36:40	110	Peris	715323678	Cancelled	<a href="#">Serve</a>
72	2022-11-13 21:35:27	120	Louis	719440705	Completed	<a href="#">Serve</a>

The online menu is as follows:

# Menu

## Githeri



Served hot.

100

## Mahamri



Tastiest mahamri you'll ever have.

20

## Pilau



Take-away available

150

## wali



Spicy and non-spicy options

150

## Black Tea



Sugarless, customer to add preferred amount of sugar.

50

## Githeri



120

## Ugali



Served hot

120

## White Tea



Sugar to be added as per convenience

30

# Conclusion

The illustrations may differ in appearance from the final deliverables due to the limitation of printing and snip photography utilised.