MEGA ELECTRIC CARS

HANI HASAN ABU-ALINAIN

30/12/2019

Version 0.0.1

REVISION HISTORY			
DATE	**VERSION**	**DESCRIPTION**	**AUTHOR**
30/12/2019	0.0.1	Initial application of the idea to make it present on the ground with the basic feature.	Hani Hasan Abu-Alinain

Table of Contents

INTRODUCTION 3
PURPOSE 3
INTENDED AUDIENCE AND PERTINENT SECTIONS 3
PROJECT SCOPE 3
DOCUMENT CONVENTIONS 3
REFERENCES 3
DESCRIPTION 3
PRODUCT PERSPECTIVE 4
FEATURES 4
USER OVERVIEW 4
OPERATING ENVIRONMENT 5
CONTRAINTS: IMPLEMENTATION / DESIGN 5
DOCUMENTATION 5
ASSUMPTIONS / DEPENDENCIES 6
SYSTEM FEATURES 3
SYSTEM FEATURE 1 3
SYSTEM FEATURE 2 3
SYSTEM FEATURE 3 3
REQUIREMENTS OF EXTERNAL INTERFACE 3
USER INTERFACES 3
HARDWARE INTERFACES 3
SOFTWARE INTERFACES 3
COMMUNICATION INTERFACES 3
ADDITIONAL NONFUNCTIONAL REQUIREMENTS 3
PERFORMANCE 3
SAFETY 3
SECURITY 3
SOFTWARE QUALITY 3
APPENDICES 3
APPENDIX A: GLOSSARY OF TERMS 3
APPENDIX B: ANALYSIS DOCUMENTATION 3
APPENDIX C: ISSUES 3

INTRODUCTION

PURPOSE

A website aims to sell electric cars, introduce people to their benefits and encourage them to buy the electric cars to preserve the environment, as the global trend now and for future.

INTENDED AUDIENCE AND PERTINENT SECTIONS

1. **People :**
   Introducing them to electric cars and their and benefits for health and the environment and determine the best car for them to buy.

2. **Companies :**
   Companies have an important role in the transfer to renewable and clean energy through the approval of electric cars.

3. **Car factories :**
   Factories benefit by marketing their products to people through the website.

PROJECT SCOPE

The main idea is to gather people and different car factories in one website to facilitate the process of searching for people and introduce them to the benefits of electric cars and to help car factories to market their products.

DOCUMENT CONVENTIONS

Django: python framework to build websites using python code, work on MVT pattern [Model, View, Template].

SQLite: relational database to store data in the tables and make crud operations on the website and save after each operation on it.

REFERENCES

- Django documentation: https://docs.djangoproject.com/en/3.0/
- Bootstrap documentation: https://getbootstrap.com/docs/4.4/getting-started/introduction/
- w3schools.com: https://www.w3schools.com/

DESCRIPTION

PRODUCT PERSPECTIVE

The website contains register, login forms for both users companies and ordinary users, after login, the ordinary users go to index page, and companies go to dashboard page.

The company's dashboard for make companies to manage their products and to see sales operations of their products.

The user page for make him to view all products, make purchase and add products to wish list.

The admin dashboard for manage everything in the website.

FEATURES

- **Add product (car):**
  The Companies can add the products to website with all information about every product like price, color and model.

- **Update product:**
  The Companies can update the products information for every product like price.

- **Delete product:**
  The Companies can delete any product in website with all information about this product.

- **Buy product:**
  The clients can buy the products by the website based in Information about every product or any car they like.

- **Add to cart:**
  The products that will buy from the clients that will add to cart for the clients and give him the sum of products in the cart.

- **Add to wish list:**

USER OVERVIEW

- Companies:
  To marketing our products to clients and manage this products in website.

- Clients:
  To view all products from companies and buy what they want.

OPERATING ENVIRONMENT

To operate this website, the device must have:

- Internet browser.
- Good internet connection

CONTRAINTS: IMPLEMENTATION / DESIGN

1- Add many items to cart and get total of price for all item from database.
2- Design the database diagram and make it matching needs of program.
3- Customize the authentication forms in Django.

DOCUMENTATION

1- Content: mainly electric cars from companies and information about these companies.
2- Mode of delivery: by the corporate agent or after shipping to the agent and then contact the customer to receive.

ASSUMPTIONS / DEPENDENCIES

1- Crash the server that hosted the project.
2- Connection speeds maybe effects on platform design and speed to get result.
3- Version of web browser.
4- Web browser type.

SYSTEM FEATURES

View and purchase products

DESCRIPTION AND PRIORITY	User purchase product: the user can views and purchase products.
STIMULUS / RESPONSE SEQUENCES	1- Login into website. 2- Go to the company that sell the product. 3- Select the product to purchase. 4- The product will added to cart. 5- Confirm the purchase operation. 6- Add the purchase information to submit.
FUNCTIONAL REQUIREMENTS	1- User must be logging in website. 2- The user must fill all required field to complete the process.

Add, update and delete products (by companies)

DESCRIPTION AND PRIORITY	Add, update and delete the products: make this operation with all information about these products.
STIMULUS / RESPONSE SEQUENCES	1- Login into website. 2- Select the action.
FUNCTIONAL REQUIREMENTS	1- Company must be login to make any action. 2- The company must fill all required field to complete the process.

USER INTERFACES

1- **Registration page:** must fill all field to complete the process successfully and save the information in database and then go to login page.

2- **Login page:** this page to make users and companies access to website and make any action they want depends about roles if the login success.

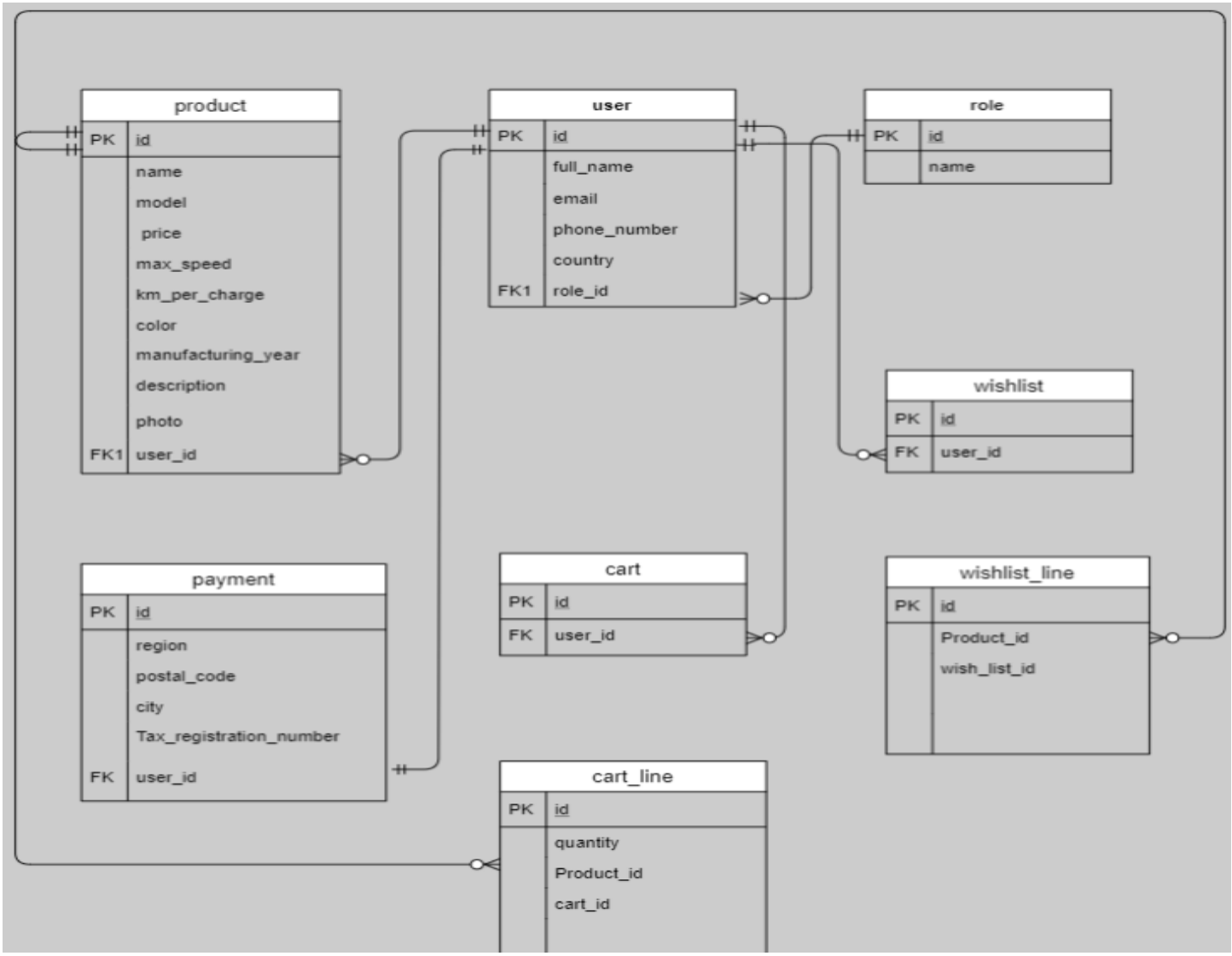
3- **Index page:** this page for users to view the products and purchase if they want.

4- **Company dashboard:** this page for companies to manage the products.

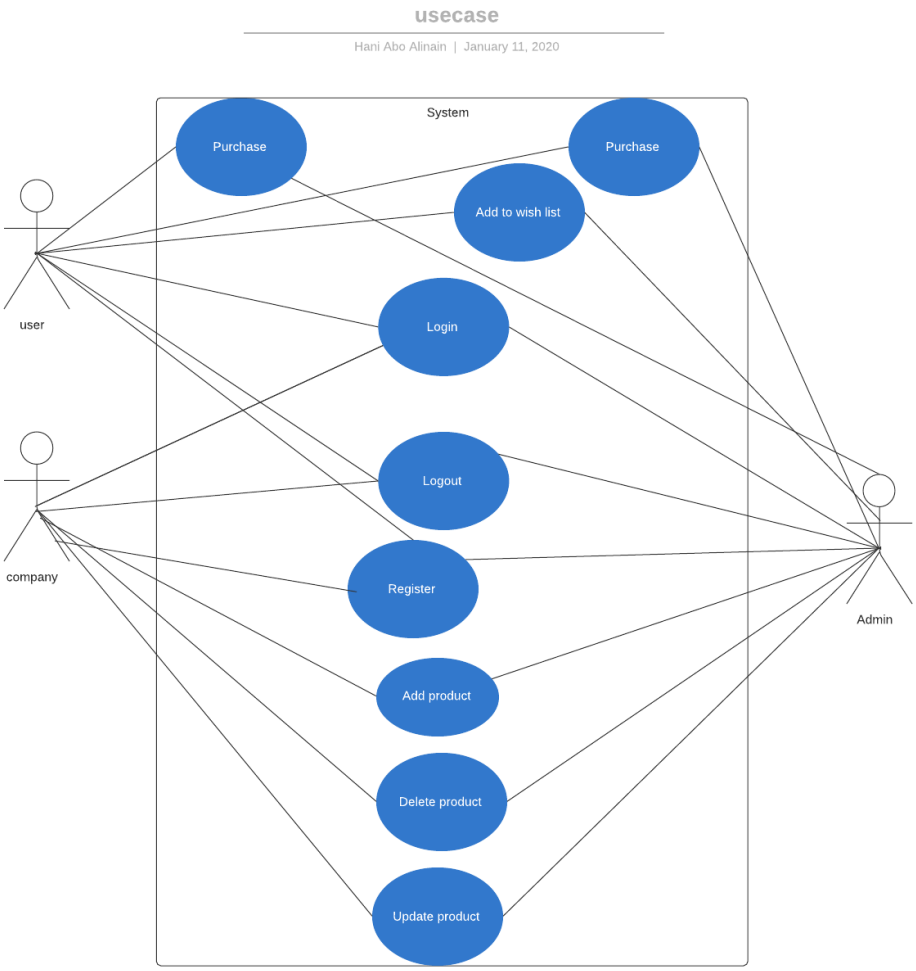
5- **Wish list page:** for users to add any product to wish list.

6- **Cart page:** for users to add items to cart for purchase many product.

DATABASE DESIGN



USE CASE DIAGRAM



ADDITIONAL NONFUNCTIONAL REQUIREMENTS

SAFETY

The website has safety when customer purchase a product by entering the visa card id for pay an initial amount to confirm the purchase.

SECURITY

1- Encrypting the password when users register to website.
2- Csrf token: to make website protected from hackers and hacking forms.