DEPARTMENT OF COMPUTER ENGINEERING

CS 353 - Database Systems

Online Flower Shopping System

Term Project Proposal

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1. Introduction

This report is to propose an online flower shopping platform. In this report, we will explain the purpose of the project in detail. After the description of the platform, functional and non-functional requirements. In this part, we will talk about properties and what kind of technological devices are required to use this platform. These requirements will set the boundaries of the system. However, it doesn't set the limitations of it. It will be handled in the system and technical limitations which are subsections of limitations. Since we mentioned the limitations and requirements, we will also mention the most optimized needs of this platform to run the system itself. In the end, there is a web page link and entity-relationship diagram. We tried to design a diagram in a way that functionalities work well in a minimum desired requirements. Later in this report; the purpose of the project, functionality and system requirements, limitations, recommended system requirements, design and database integration has been explained. Also there is a link for the webpage but it has only home page right now.

2. Project Description

The goal for this project is to create an online flower shopping platform similar to the ÇiçekSepeti. The system that we aim to create, will bring together customers, flower-sellers and couriers. The project will have a review system that will be used to evaluate the

customer satisfaction about delivery of the goods. Customers will be able to select floral and designate an address for the delivery point of the product. Customers will have an option to add a note with the flowers. Payment will be done in different ways such as cash at delivery or beforehand via online payment through the system and also customers will be able to customize delivery type of the product. Whenever a customer creates a request for shopping, flower-sellers will be able to see the requests and also flower-sellers will be able either accept the request or reject it. Not only flower-sellers have the option to accept or reject the orders, but also the couriers will have the same option, they can accept or reject the requests. After delivery of the product, customers can evaluate the customer satisfaction part and based on the scores, customer services will manage the complaints regarding the system. Admins can delete the reviews if they see a need.

2.1 Role of Database in The Project

This project requires fast and proper connection between customer and flower-seller and also between courier and flower-seller. There will be a lot of options about flowers as well as custom flowers that need to be stored in a database and the database should be fast enough to prevent facing queues in requests. Furthermore as the project proceeds in progress, job requests, customers' orders, customer informations, reviews, employee informations like position, location or salary; all those information needs to be managed properly by the database for quick response thus not only for increase customer satisfaction but also to prevent disorganization of the work. In this manner, database management such as adding new information or editing existing ones must be handled efficiently.
System should provide requested information fast and should also be developer friendly for the sake of scalability and for the sake of understanding.

3. Requirements

This part consists of requirements of the database. Requirements of the database will be analyzed in order down below in this part.

3.1 Functional Requirements

There are mainly five actors in our system as follows: customer, flower-seller, courier, customer service, admin and the functionalities of those actors are mentioned below.

3.1.1 Customer

Customer is able to:

• Sign up for a new account and create a customer profile.

• Can create an order either from default flower options or by creating a custom flower and send request to flower-sellers.

• Can cancel order.

• Evaluate the order.

• Can choose the payment method.

• Can track the order in the delivery process.

3.1.2 Flower-Seller

Flower-Seller is able to:

• Sign up for a new account and create a flower-seller profile.

• Can accept or reject the order which is created by the customer.

• Can contact and give the order to the couriers.

• Can design and create the order that is given by the customer.

3.1.3 Delivery-Person

Delivery personis able to:

• Can accept or reject the order which is sent by the flower-seller.

• Can deliver the order.

3.1.4 Customer-Services

Customer services is able to:

• Can correct the misunderstandings between customers and the other actors.

• Can remove inconvenient reviews if there are any.

3.1.5 Person

Person is able to:.

• Can remove anl order

• Sign up an account and create a profile.

3.2 Non-Functional Requirements

This part three different non-functional requirements will be mentioned about. User friendly interface, easy maintenance and reliability, response time.

3.2.1 User Friendly Interface

In implementation, we will build a platform that is easy to understand and use for users even if they don't have experience before. User interface will be designed considering that fact.

3.2.2 Easy Maintenance and Reliability

Personal information should be protected by our system in order to prevent hacker attacks. System should not lose the data even if it crushes. Information about users are kept in the system for maintaining easy and quick access if needed.

3.2.3 Response Time

Response time must be short and shouldn't exceed a few seconds. If it does exceed a few seconds then that means that the users will possibly lose their interest about the system. Thus we will implement our project in a way that it will be able to respond quickly when a request is sent.

3.3 Pseudo Requirements (Constraints of the System)

- MySQL will be used for implementation of the database.
- Django framework will be used for back-end development of the system as well as support front-end.
- HTML, CSS and Javascript will be used for front-end development of the system.

3.4 Application Requirements

- System should have a compatible web browser in order to become fully functional.

4. Limitations

The limitations of database are clarified in this part. Therefore, in this part, we will examine system limitations and technical limitations one after another.

4.1 System Limitations

- Customers can not publish any flowers into the system.
- Customers can buy flowers, comment on the flowers they bought and rate the shopping.
- Flower sellers can not comment on customers' comments. Also, flower sellers can not like or dislike customers' comments.
- Flower sellers can submit a request to the customer service to delete comments including misinformation.

4.2 Technical Limitations

Technical limitations are clarified in this part one after another. These limitations are a variety of data, data transaction speed, data size, security, reliability and stability, limitations or relational languages and maintainability.

4.2.1 Variety of Data

The database design type restricts the data structure we use. The stored data for this system must be well structured.

4.2.2 Data Transaction Speed

Sufficient information retrieval techniques must be used to make the functionality of the database stable about data speed.

4.2.3 Data Size

The system must have the feature of scalability in terms of data size. System must support the limited and large amount of data to the MySQL database constraints.

4.2.4 Security

People must use accounts which differentiates among user types. The account information of each user must be kept in the database. Also, each type of user can access specific information types.

4.2.5 Reliability and Stability

The system must be tested well to prevent possible future bugs, malfunctions and unexpected crashes. These tests must be done before releasing the system to prevent the processes of the users. Moreover, testers must test all cases about the system to make the whole system reliable.

4.2.6 Limitations of Relational Languages

Since MySQL has a maximum 10GB size, there will be many possible malfunctions because the system will hold a huge amount of user data.

4.2.6.1 Server Limitations

- The maximum number of SQL servers is 16 on a computer.
- Maximum sizes of SQL server on a 64-bit system are 900 bytes per foreign key and 900 bytes per primary key.

4.2.7 Maintainability

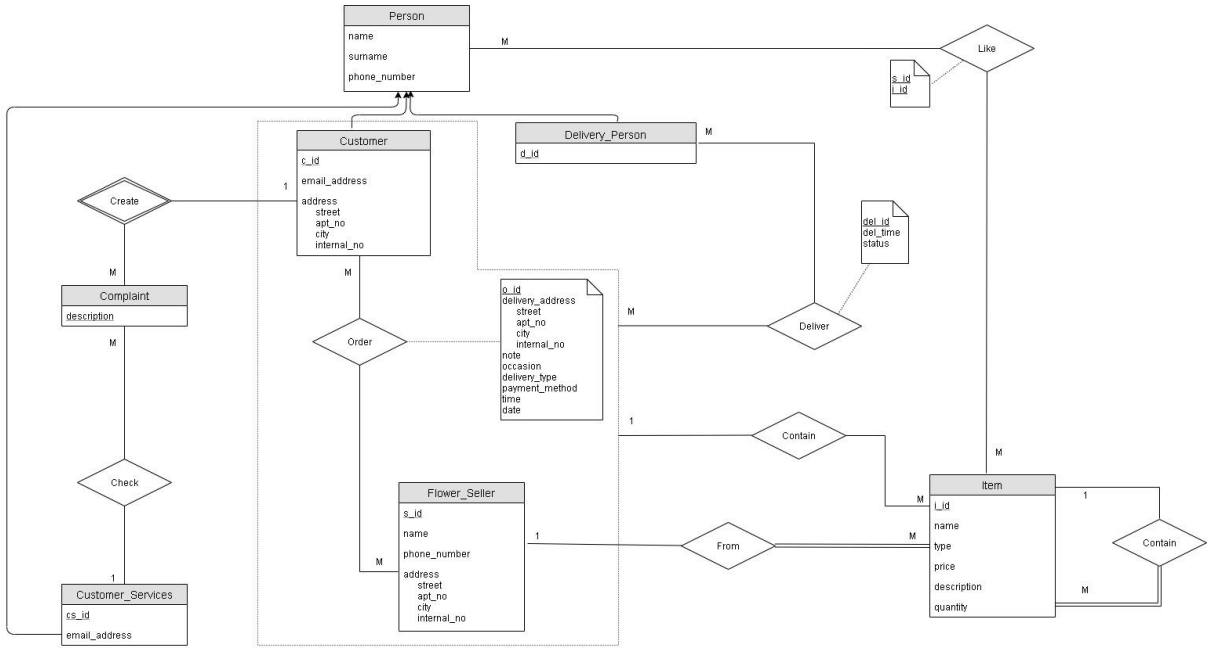
The whole system must be maintainable without any error in the long-term because the database of the system will be used for many years.

5. Recommended System Requirements

System should at least have:

- Linux version 16.04,
- MacOS 10.14(Mojave),
- Windows 8.1,
- Android 5.0(Lollipop),
- iOS 11,
- Compatible web browser,
- 64bit OS,
- 256 MB of RAM and Intel Core 2 duo 2.0 GHz CPU,

6. Entity Relationship Diagram



7. Webpage

https://dogacankaynak.github.io/onlineFlowerShoppingSystem/

8. Conclusion

Online Flower Shopping System is a website where flower sellers can post flowers and customers can buy these flowers. Customers can also comment on the flower they bought, rate the shopping and like or dislike the overall system. Courier can accept or reject the order which is sent by the flower seller and deliver the order. Customer service can

correct the misunderstandings between customers and the other actors, and admin maintains the system and keeps it functional

In this proposal, the purpose of the project is explained. The objective of the database is described. The functional and non-functional requirements of the project are declared. What the users can do in the system is specified in the part of the functional requirements. Non-functional requirements are also described with details. Moreover, limitations which are about system and technical are described one after another. We also clarify the recommended system requirements. Finally, the ER diagram and webpage are available in our report.