Online Auction

System Design Document

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**1. Introduction**

Online Auction is a auction application that is developed for android platform. It designed to become collection of components that communicate ﬂexibly with each other since there is no complex tasks in the application to do.It designed with React using Javascript to write to code and translate the software to an android output. The application itself is a simple ccmposition of familiar websites of ebay, gittigidiyor , letgo etc. Since the auction applications is not used too much in our contry we also get information to develop our application by looking universal applications or websites that is doing the same task. We wanted to use layered architecture on our project also our design goals are as follows;

The system should be easy to use by under the means of usability also it must support multiple users to supply needed performance to users. OA also need to be reliable since it has to do with auctions. The app must be secure to be under the terms of reliability.It also needs to be supportable by many versions of the android the reach more users.

**1.1. Purpose of the System**

The main purpose of the applicaion is to provide registered users a platform that they can easily and fastly their stuff. OA also a good opportunity to bring the auctioning style shoppining in to the local area and make people’s items worth as much as they do to prevent them from being scammed on or prevent from stuck with unselling the item.

**1.2. Design Goals**

***Usability***

Since the end-user will be using the system while anytime in day even in work , it is essential for the system to be intuitive and easy to use.

***Multiple Users***

The application should support tasks that are performed by multiple users in concert, supplying each with the necessary information at the appropriate time.

***Reliability***

OA should be provide all of its users a secure experience. Unregistered visitor should be able to see the current auctions and stuff. Yet, users need to be registered user to do bidding and selling procession. Logging to the application should be provided with unique e-mails and password that are appropriate for password criteria. The membership information should be private and should not be shared with anyone without the will of the user.

***Performance***

OA should be responsive in different versions of Android OS and it should be able to scale correctly in different versions of Android OS and devices. It should be running in more than one mobile device . OA is going to be dynamic content, so there should not be complicated queries in back end to not decrease performance.

***Understandability***

OA must be easy to understand for users to all ages.Bidding or Selling functions must be most 2-3 clicks events.

***Supportability***

OA should be managed by admin. The application should be supported on different android versions and be independent by hardware mostly. In the react native part system should be able to open for new implementations easily.

***Implementation***

There are no constraints on the hardware platform. There are no constraints imposed by the maintenance team. There are no constraints imposed by the testing team. The design methodology is obtained as Agile Development Approach. System runs with query. JavaScript language is used in this system. Query based statements are handled by React Native. JavaScript, ………..

***Legal***

The Online Auction does not use any license or licensed work. It is a student project.

**1.3. Definitions, Acronyms, and Abbreviations**

*SDD :* System Design Document

*OA :* Online Auction

*React :* **React Native** is a JavaScript framework for writing real, natively rendering mobile applications for iOS and Android

*Admin:* System actor that administrates the system.

*Visitor:* System actor that is not a registered user of the system.

*Subsystem:* Collection of classes, associations, operations and events closely related to each other.

*HTTP :* The HyperText Transfer Protocol

*UI :* User Interface

**1.4. References**

[www.gittigidiyor.com](http://www.gittigidiyor.com)

[www.ebay.com](http://www.ebay.com)

www.tr.letgo.com/tr

[www.liveauctineers.com](http://www.liveauctineers.com)

**2. Current Software Architecture**

There are some websites and applications that are related to our application . These applications are to provide auction bidding and selling platform between registered users. The applications and websites mentioned are;



The common applications are big and focusing on a bigger area. But our application is only focusing on auctioning in our local area. Since there is no application that is serving only this service in our local area this is a good opportunity for our application. The common problems also in letgo there will be here too. We need to prevent users to be scammed in an auction process. Since we are not responsible for any payment and we are just a platform that helps registered users to sell their stuff with auctioning , the money transections will be in the users responsibility. Besides from that local people are not used to use auctioning to be a part of their lives. But this could initially turn into a opportunity.

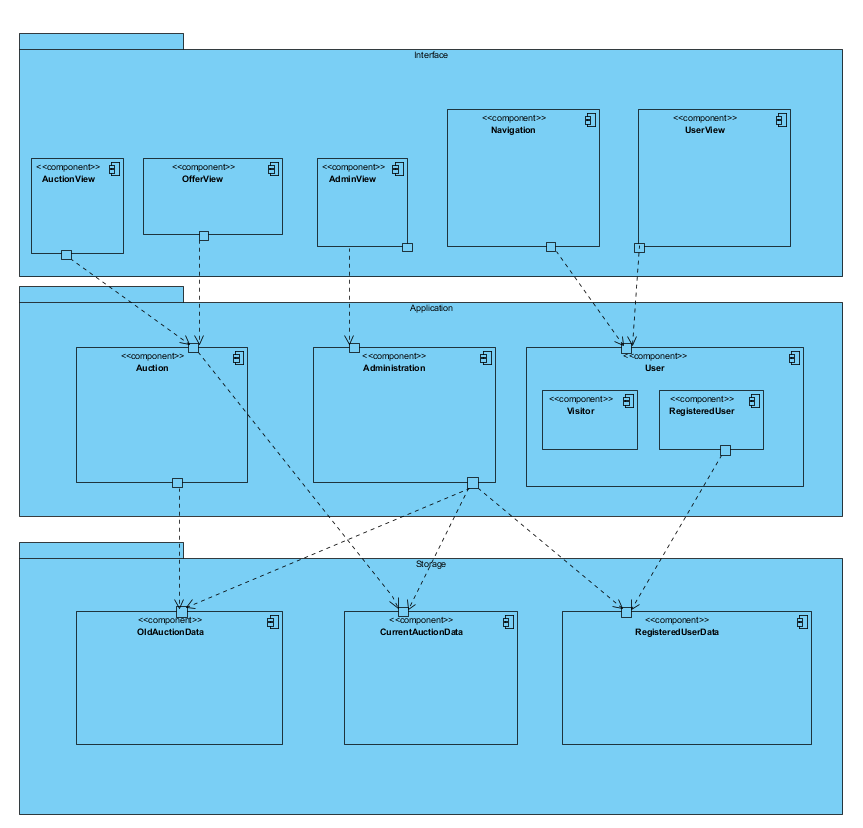
**3. Proposed Software Architecture**

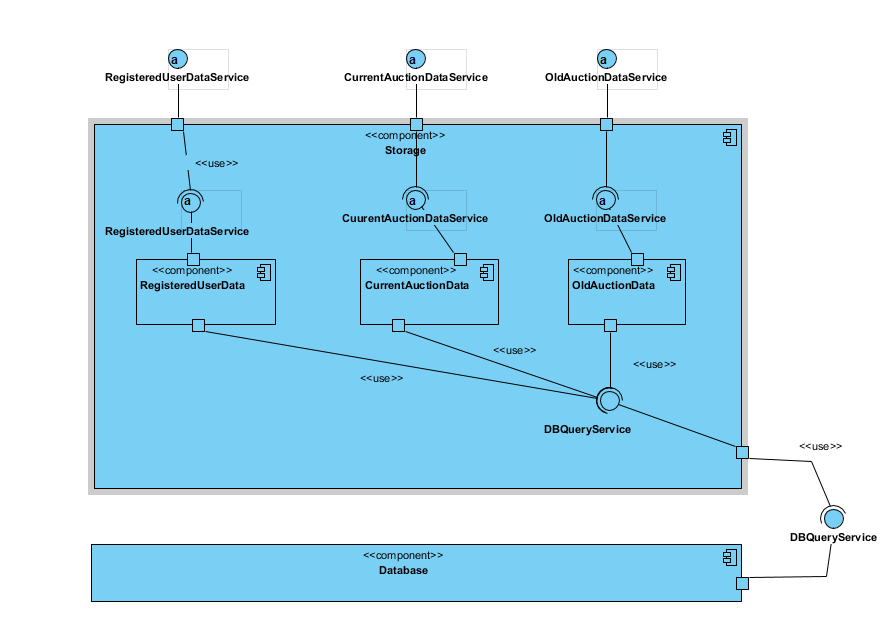
Documents the system design model of the new system.

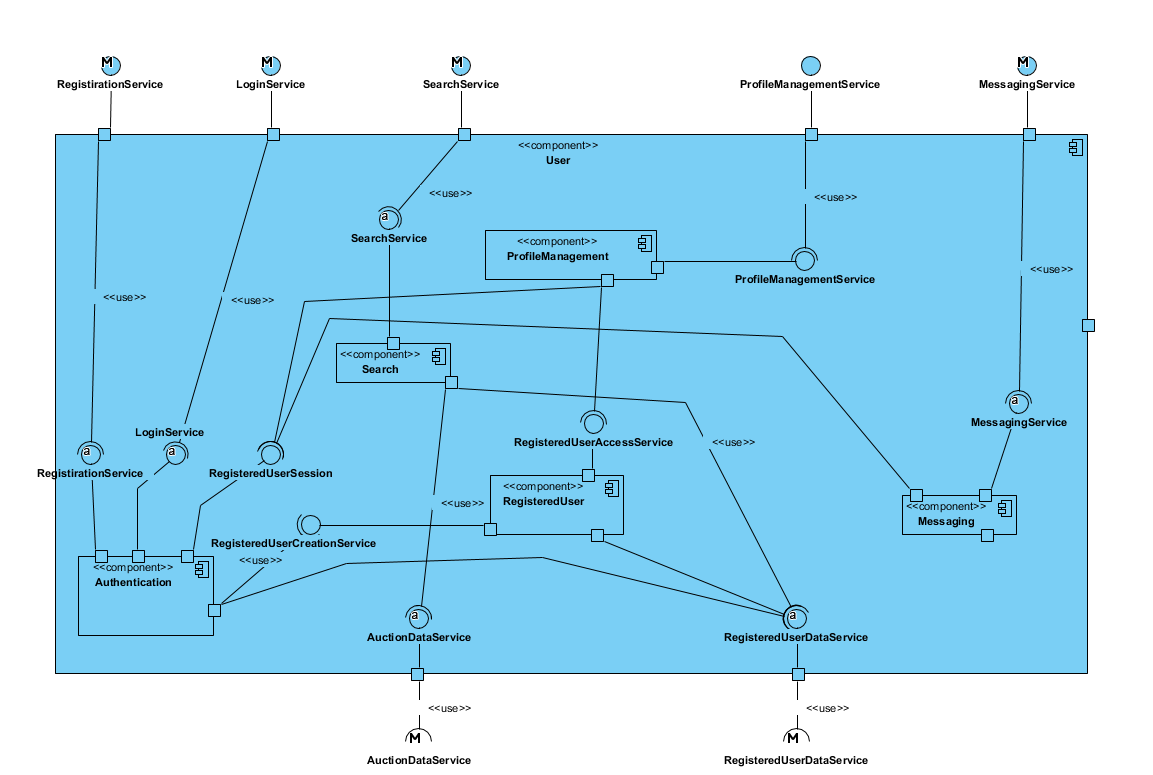
**3.1. Overview**

Present a bird’s-eye view of the software architecture and briefly describes the assignment of functionality to each subsystem.

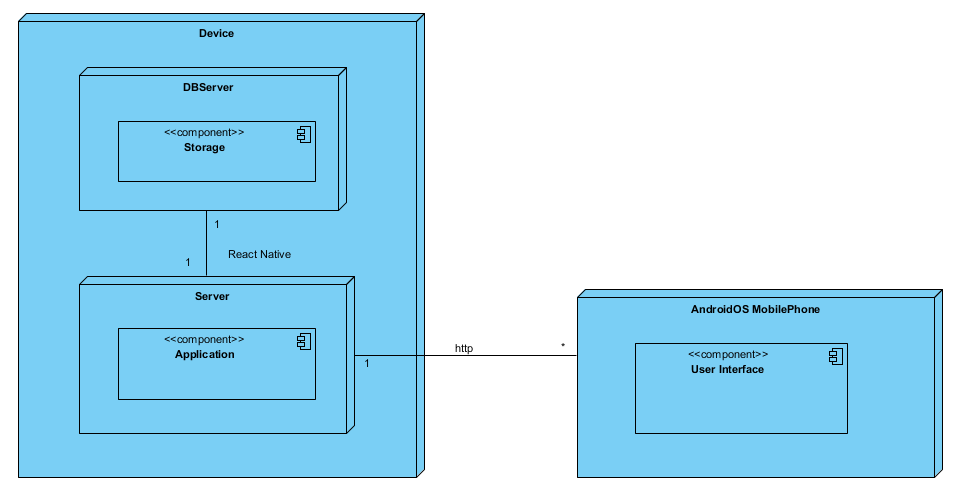
**3.2. System Decomposition**



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**3.3. Hardware Software Mapping**

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Describe how subsystems are assigned to hardware and off-the-shelf components. It also lists the issues introduced by multiple nodes and software reuse.

**3.4. Persistent Data Management**

Describe the persistent data stored by the system and the data management infrastructure required for it. This section typically includes the description of data schemes, the selection of a database, and the description of the encapsulation of the database.

**3.5. Access Control and Security**

Describe the user model of the system in terms of an access matrix. This section also describes security issues, such as the selection of an authentication mechanism, the use of encryption, and the management of keys.

**3.6. Global Software Control**

Describe how the global software control is implemented. In particular, this section should describe how requests are initiated and how subsystems synchronize. This section should list and address synchronization and concurrency issues.

**3.7. Boundary Conditions**

Startup:

- First of all , admin is declared with react native.

Logging in:

- Username and/or password field are blank.

- Password is not 6 characters long.

- Password and username don’t match.

- Username is wrong or does not exist.

- Main Page does not appear after logging in.

Register:

- Username is already in use

- Password is not 6 character long

- Username and/or password and/or password again fields are blank.

- Password and Password again are not match

Profile Management:

- User can’t edit his/her information or the changes do not reflect.

- System crashes while editing profile information.

Starting Auction:

- Registered user send a request for a new auction without selecting a category.

- Registered user send request for a new auction without filling the empty blanks about the information of the item.

Giving Offer:

- Entered bid amount is lower than current bid.

- Bidding ends while making another bid.

- System crashing while bidding process.

**4. Subsystem Services**

Describe the services provided by each subsystem. Although this section is usually empty or incomplete in the first versions of the SDD, this section serves as a reference for teams for the boundaries between their subsystems. The interface of each subsystem is derived from this section and detailed in the Object Design Document.

**5. References**

The following is an example of listing a book in this section. Check the text to see how it is cross referenced (The whole document is based on [1]).