

GiftIt

GIFT REGISTRY CREATION AND SHARING

(Web Programming Languages)

Group Name: GiftIt

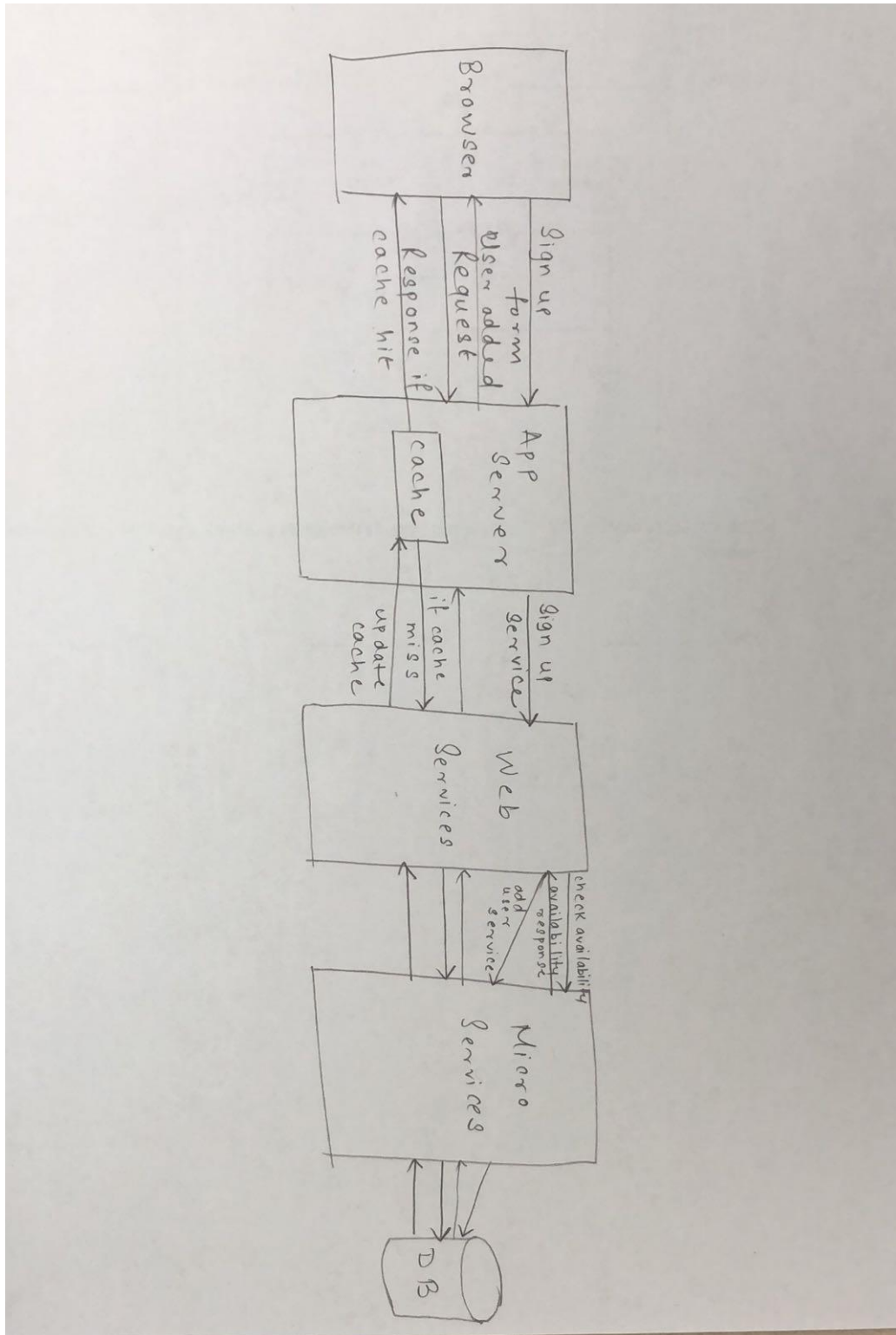
Group Members

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- **Architecture of Web Application**



- **Technologies and Libraries**

- a. **Client Side**

- 1. Framework: Bootstrap
 - 2. Languages: HTML, CSS, JavaScript, JSP, Servlet

- b. **Server Side**

- 1. Framework: Jersey
 - 2. Languages: Java
 - 3. Libraries: GSON, JDBC, HTTP Servlet, Memecached, PJP filter

- c. **Database**

- 1. MySQL

- **TOOLS**

- 1. Eclipse to build client side and server\side web applications.
 - 2. MySQL Workbench to design the database.

- **Project Functionalities**

- a. **Regular User:**

- Signup:** User can Register himself by filling the registration form.

- Login:** User can login by providing email and password.

- Forgot Password:** User can change password by clicking the forgot password link provided on the login page by giving the answer for security question he has set during the sign up time.

- Profile Editing:** User can edit profile by clicking the My Account provided on the dashboard.

- Create Registry:** User can create his own registry from create registry section and make it private or public. He/She can add the items in the registry and add the list of people with whom he/she wants to share the registry if registry has been made private.

- View Own Registry:** By clicking the “View Own Registries” link on the dashboard user can view all the registries created by user. On clicking the registry, user can view all the item he has already been added to the registry in sortable data table and apply filters on each column. He can also see the items has been assigned or not and if it has been assigned then he can see the name of the person who assigned the item to him.

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View Shared Registry: By clicking the “View Shared Registries” link on the home page user can view all the registries shared with the user. On clicking the registry, user can view all the items in the data table with the filters applied to it. He can sort the table on the different fields. He can assign the items by clicking the button Assign on the each of the row and it will be reflected on the registry and creator of registry will also know that this person has assigned the registry to him.

View Public Registry: By clicking “View Public Registry” it will give the list of all the public registries from the database.

Logout: User can logout from the system.

b. Admin User

Login: User can login by providing username and password.

View Items: View all items in the registry.

Add Item: Add item into the registry.

Remove Item: Remove item from the registry.

Logout: Logout from the system.

• Services and Microservices

Signup Web Service: This service is called when the user registers himself.

- i. It will call the one micro service which will check user name is already available or not.
- ii. If the username is available, it will add the user to the database.

Login Web Service: This service is called when the user logs himself.

- i. It will call the microservice which checks the username and password are valid in the database. And if its valid user will be moved to his home page where he can show the items from our database.

Update Profile Web Service: This service is called when user wants to update his profile from My Account Section.

- i. The above service calls the micro service which will authenticate the user and update his profile information.

Create Own Registry Web Service: This service is used to create registry and to add the items in it and also shares the registry with the users if it is private or public.

- i. The above service will call the micro service which will perform all the above tasks.

View Own Registry Web Service: This service is used to view the list of user’s own web registry.

- i. It will call the micro service which gets the list of registry names from the user.

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View Shared Registry Web Service: This Web service will give the list of all the registries which have been shared with him.

- i. It will call the microservice which also gets the list of registry names which have been shared with the user.

Registry Info Web Service: This web service will give the information of the registry with list of items item's assignments and also the users with it has been shared.

- i. It will call the microservice which will complete all the above task by interacting with database.

View Public Registry Web Service: This Web service will give the list of all the registries which have been set to public.

- i. It will call the microservice which also gets the list of registry names which have been shared with the user.

Assign Item Web Service: This assignment web service will set assignment for the user who is willing to set assignment for him.

- i. It will call the microservice which will interact with database and complete the above task.

Add Item by Admin Web Service: This web service will add item in the database and will be accessed by only admin.

This will call the micro service which will authenticate the admin and add item to database.

Delete Item by Admin Web Service: : This web service will delete item in the database and will be accessed by only admin.

This will call the micro service which will authenticate the admin and delete item from the database.

● Problems During the Implementation:

There were a lot of challenges faced during the implementation. The most important ones and the ones from which we really learnt a lot are:

- i. Use of multiple servers by setting up multiple tomcat servers on different ports and having successful connections between them where the data transfers as expected was one of the most challenging parts. Initially it took a lot of time and effort to do this but once done we saw the importance of this requirement in our project.
- ii. Designing an efficient database was also amongst one of the biggest challenges because we wanted to make sure that the database is normalized as well as we did not want to make it over redundant.
- iii. Also one other challenge that we faced was using jQuery Datatables to display the products because it was an integral part of the project as we used it for sorting and filtering based on various fields for the product.
- iv. One more aspect was understanding how to add the memcached and the compression part and also the SSL/TLS because making changes in the server.xml files we messed up something which caused the project to stop and it took us almost 3 hours to have everything running again.
- v. We started working on the single sign on stuff but running a little short of time we could not complete that as expected.

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Overall we had an amazing enterprise level experience while working on the project and we feel that this project has really helped us to be industry ready to work on projects at a large scale. We enjoyed working on the project.