BLG 411E SOFTWARE ENGINEERING PROJECT PLAN

GROUP 20

Project Title: BastırChef

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1. INTRODUCTION

This app is a vibrant platform connecting chefs and home cooks passionate about food. Our app enables chefs to share their favorite recipes, while users can effortlessly search for dishes based on their available ingredients. Users can create custom food lists, easily share them with friends, and discover new recipes tailored to their tastes. The app also offers intelligent recommendations, suggesting fresh recipes based on users' previous likes and preferences.

1.1. **Scope**

- Ingredient-Based Search
- Finding new recipes with the recommendation engine
- Deciding what and how to cook
- Preparing a shopping-list for missing ingredients

1.2. Deliverables

| Delivery ID | Delivery Name Delivery Date | |
|-------------|-----------------------------|------------|
| BC-000 | Project Charter | 21.10.2023 |
| BC-100 | Project Plan | 10.11.2023 |
| BC-200 | Software Requirement | 21.11.2023 |
| | Specifications | |
| BC-300 | Software Requirement | 28.11.2023 |
| | Analysis | |
| BC-400 | Backend Service | 10.12.2023 |
| BC-500 | Web-App and Admin Panel | 18.12.2023 |
| BC-600 | Mobile App | 18.12.2023 |
| BC-700 | Software Design Document | 19.12.2023 |
| BC-800 | Test Report | 02.01.2024 |

1.3. Functional Requirements

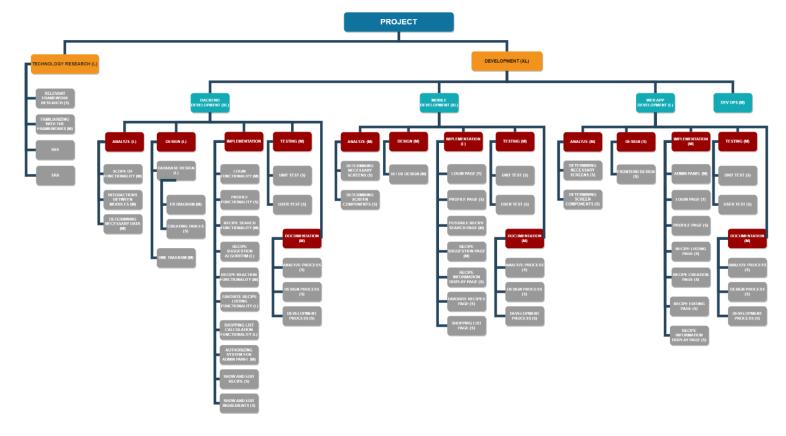
| Task ID | Mapped Deliverable | Functional | Technical Details |
|----------|--------------------|-------------------------|-------------------------|
| | ID(s) | Requirements | |
| FR-1 | BC-400, BC-500 | Admin Panel | Web based |
| | | | management which |
| | | | does CRUD functions |
| FR-2 | BC-500, BC-600 | Can login with their | Form for login |
| | | credentials | |
| FR - 2.1 | | Account | Profile name, |
| | | | password, profile |
| | | | picture information |
| FR-3 | BC-600 | Can see food recipes of | Search algorithm, List, |
| | | other users | detailed page |
| FR-4 | BC-400 | According to liked and | Recommendation |
| | | added recipes, can | algorithm |
| | | make recipe | |
| | | recommendations | |

| FR-5 | BC-400, BC-600 | Can make recipe list/playlists | List for that specific user, add functionality in database |
|--------|---------------------------|--------------------------------|---|
| FR-6 | BC-400, BC-600 | Creating shopping list | List for that specific user, add functionality in database |
| FR-7 | BC-400, BC-500, BC-600 | Reactions for posts | Pop-up part for comment and button for likes |
| FR-8 | BC-400, BC-500 | Adding Recipe | Form for recipe informations and descriptions, picture addition, submit |
| FR-8.1 | BC-400, BC-500 | Recipe view and edit | Edit button and editing form page, list for viewing recipes |

1.4. Non-functional Issues

- **Usability:** The user interface ought to be straightforward and the user's interaction with the system should be pleasant.
- **Security:** User credential security will be protected.
- **Scalability:** The system should scale for several hundreds of users using it during busy course registration times.
- Performance: Application pages should open in a short acceptable time.
- **Modularity:** The program structure will be modular with different tasks bound to different services and modules.
- **Reliability:** Modules and framework will be integrated correctly so that both applications will perform as intended in any case.

2. PROJECT PLAN



To clear images : <u>Drive Link</u>

3. ESTIMATES

Backend

Mobile

Web

| Estimate ID | Task ID (from functional requirements) | Task | Man- Week Value |
|----------------|--|-------------------------------|-----------------------|
| T-1 | requirements) | Technology Research | 3 |
| T-1-1 | | SRS | 5 |
| T-1-2 | | SRA | 5 |
| T-2 | | UML Diagram | 2 |
| T-3 | FR-2 | Login Functionality | 0.5 |
| T-4 | FR-2.1 | Profile Page | 0.5 |
| T-5 | FR-3 | Recipe Search Functionality | 1 |
| T-6 | FR-4 | Recipe Suggestion | 1 |
| | 775 - | Functionality | 0.7 |
| T-7 | FR-7 | Recipe Reaction Functionality | 0.5 |
| T-8 | FR-5 | Favorite Recipe Listing | 0.5 |
| T-9 | FR-6 | Shopping List Calculation | 0.5 |
| T-31 | | Show and Edit Recipe | 0.5 |
| T-32 | | Show and Edit Ingredients | 0.5 |

| T-10 | | Testing | 1 |
|------|--------|-----------------------------|------|
| T-11 | | UI/UX Design | 2 |
| T-12 | FR-2 | Login Page | 0.5 |
| T-13 | FR-2.1 | Profile Page | 0.5 |
| T-14 | FR-3 | Possible Recipe Search Page | 1 |
| T-15 | FR-4 | Recipe Suggestion Page | 1 |
| T-16 | FR-7 | Recipe Information Display | 0.75 |
| | | Page | |
| T-17 | FR-5 | Favorite Recipes Page | 0.75 |
| T-18 | FR-6 | Shopping List Page | 0.75 |
| T-19 | | Testing | 1 |
| T-20 | | Frontend Design | 1 |
| T-21 | FR-1 | Admin Panel | 2 |
| T-22 | FR-2 | Login Page | 0.5 |
| T-23 | FR-2.1 | Profile Page | 0.5 |
| T-24 | FR-8.1 | Recipe Listing Page | 0.5 |
| T-25 | FR-8 | Recipe Creation Page | 0.5 |
| T-26 | FR-8.1 | Recipe Editing Page | 0.5 |
| T-27 | FR-8.1 | Recipe Information Display | 0.5 |
| | | Page (likes,comments) | |
| T-28 | | Testing | 1 |
| T-29 | | Overall Testing | 2 |
| T-30 | | DevOps | 2 |

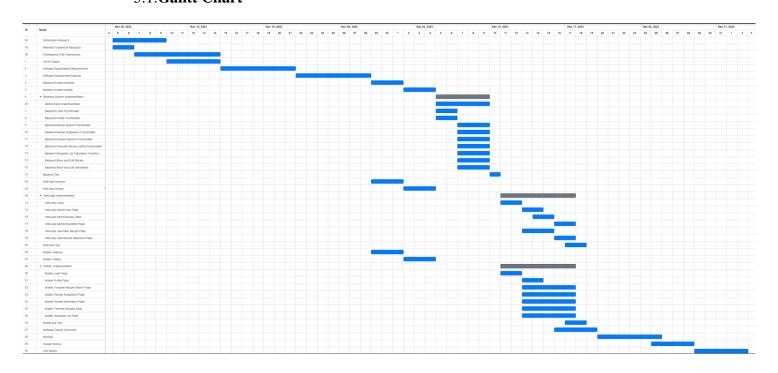
4. RESOURCES

| Name | Member Role | Project Activity Role |
|-----------------------|-----------------|------------------------------|
| Muhammed Necati Polat | Team Leader | Backend Implementation |
| | | for: ER Diagram, UML |
| | | Diagram. |
| | | Backend and Web |
| | | Implementation for: Admin |
| | | Panel, Login System, |
| | | Reaction System, Favorite |
| | | Recipe System. |
| | | Analysis, Tests and |
| | | Documentation of own |
| | | modules. |
| Hızır Emirhan Keskin | Product Manager | Backend and Web |
| | | Implementation for: Admin |
| | | Panel, Suggestion System, |
| | | Shopping List System, |
| | | Show and Edit Recipe, |
| | | Show and Edit Ingredients |
| | | Analysis, Tests and |
| | | Documentation of own |
| | | modules. |
| | | |

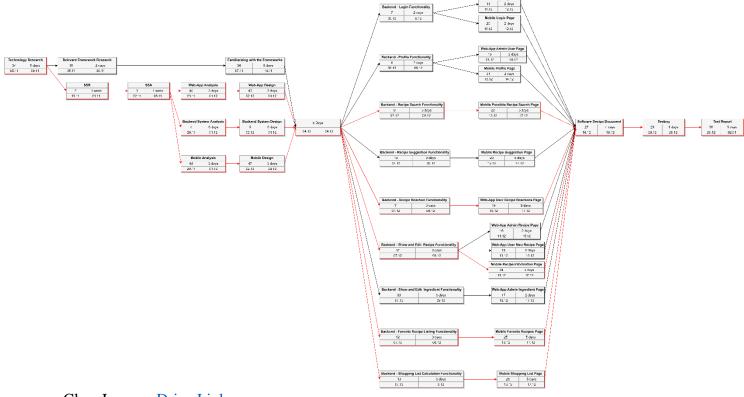
| Merve İnal | Software Engineer | UI/UX Designer, Mobile Implementation for: Profile, Shopping List, Search and Suggestion |
|------------------------|-------------------|--|
| | | Pages Mobile Testing |
| Fadime Buse Yediparmak | Software Engineer | UI/UX Designer, Mobile Implementation for: Login, Favourite Recipes, Search and Suggestion Pages, Mobile Testing |
| Atacan Utkusavaş | Software Engineer | Backend and Web Implementation for: Admin Panel, Suggestion System, Profile System, Search System. Analysis, Tests and Documentation of own modules. |

5. SCHEDULE

5.1.Gantt Chart



5.2. Pert chart



Clear Images: Drive Link

6. RISKS

6.1. Risk Probability/Impact Chart

| Risks | Category | Probability (%) | Impact |
|-------------------------------|----------|-----------------|--------|
| Low accuracy of | TE | 70 | 3 |
| recommendation algorithm. | | | |
| Novice staff members have | ST | 50 | 3 |
| the potential to result in | | | |
| missed deadlines. | | | |
| Server can crash due to | PS | 5 | 2 |
| overload. | | | |
| Wrong recipe posting by | CU | 10 | 1 |
| users. | | | |
| A competitor can be released. | BU | 15 | 3 |

PS: Project Issues, BU: Business, CU: Customer, TE: Technology, ST: Staff

6.2. Risk Mitigation Chart

| Risk | Affect | Description |
|-----------------------|---------|---|
| Low accuracy of | Product | All personnel will be assigned for fixing the |
| recommendation | | algorithm. More complex AI models can be |
| algorithm. | | developed. |
| Novice staff members | Project | Personnel should dedicate their free time to |
| have the potential to | | studying the necessary programs and |
| _ | | programming languages. |

| result in missed | | |
|-------------------------|----------|---|
| deadlines. | | |
| Server can crash due to | Product | To handle the incoming requests, it is |
| overload. | | advisable to increase the server capacities. |
| Wrong recipe posting by | Project | Recipes will be sorted or deleted according to |
| users. | | user reactions. |
| A competitor can be | Business | The release should be postponed slightly in |
| released. | | order to launch the application with additional |
| | | features. |