SE 216 – SOFTWARE PROJECT MANAGEMENT
SOFTWARE PROCESS MODEL DOCUMENT

PROJECT Name: **FOOD BRIDGE**

GROUP MEMBERS: **Hakkı Nasiboğlu, Süeda Aktürk, Öykü İrem Oplazgil, Ece Günal, Atalay Doğan, Mehmet Tatlı**

#	NECESSARY NEEDS FROM THE ORGANIZATIONAL PROCESS
1	User-Friendly App Design: Users shouldn't deal with any difficulty using and navigating the FoodBridge app. The design should be simple and understandable for every age. "There needs to be language options for all languages".
2	Feedback and Improvement Mechanisms: All users or stakeholders should be able to write and send their feedbacks. The acceptable feedbacks should be looked into and used to make improvements or corrections.
3	Legal Compliance and Regulation: Food safety and personal data protection should be comply with the laws. There should be policies and procedures to make users feel safe and reduce potential risks.
4	Volunteer Recruitment: People are needed to help collect and distribute food donations. People who volunteer to do so must deliver food smoothly and safely.
5	Logistics and Transportation: Logistics and transportation are very important to ensure that the products are delivered to the correct addresses before their expiration date. The products will be distributed from warehouses to those in need. It will be delivered to citizens who do not have the opportunity to come to the warehouses via motorized courier.
6	Communication Channels: In order for the application to function regularly, communication must be established both internally and externally. All members can be reached via e-mail. Brochures and social media ads can be used to increase recognition.
7	User Management is how the Food Bridge application ensures that the records of donors and those in need are kept and managed in processors under the name of big data. In this way, the information entered by donors and those in need is collected. This information includes their addresses, identities and records of the food they donated/received.
8	Collaboration and Growth involves the app facilitating collaboration with corporate and individual partners. The Food Bridge application is aimed to be a partnership with both some businesses and the states where it is used. In this aspect, channels are determined to communicate with relevant organizations and advertising activities are supported to expand the usage network, and advertisements can be made to expand the use of applications on large platforms.

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#	UNNECESSARY NEEDS FROM THE ORGANIZATIONAL PROCESS
1	Excessive Customization Options: Employ potent data security measures to keep sensitive personal information of users. Ensure transparent communication about the data usage to the users according to the privacy regulations.
2	Unnecessary Administratve Hierarchy:Find and implement a way of making sure that the quality of the collected food is acceptable and is regularly inspected. Train all staff and volunteers on ways to check the overall quality and safety of the collected/donated food.
3	Overly Complex Features: The app should be simple and only provide the necessary features and options for the user. Complicated features could lead to user confusion while navigating throughout the application.
4	Overly detailed user profiles: information other than personal information, demographic information and geographical location information, such as interaction history, shopping history, should not be included in the users' profile. Unnecessary information may raise concerns about users' securit

SOFTWARE PROCESS NAME: Scrum

SOFTWARE PROCESS DESCRIPTION: Scrum is a widely used framework that enables collaboration and iterative progress in agile project management. It describes a set of meetings, tools, and roles for efficient project delivery. Scrum is not a process, technique, or definitive method. Rather, it is a framework within which you can employ several processes and techniques. The framework is guided by core principles for example self-organization, continuous improvement, and a focus on delivering value to the customer. The Scrum framework consists of Scrum Teams and their associated roles, events, artifacts, and rules. Scrum combines four formal events for inspection and adaptation within a containing event, the Sprint. These are; Sprint Planning, Daily Scrum, Sprint Review, Sprint Retrospective. The empirical foundations of Scrum are transparency, inspection and adaptation. Scrum team has usually include 10 or fewer people. Scrum's simplicity and focus on delivering high-quality products productive have made it a go-to methodology for lots of software development teams.

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SOFTWARE PROCESS MODEL:

Sprint 1
Sprint Goal: Enabling users to create accounts and enabling them too add and record the foods they will donate.
Sprint Backlog:
1)Improving user account creation and login feature.
2)Creating an interface where users can donate food.
3)Implement basic security precautions.
4) Providing donor anonymity functionality.

Sprint 2:
Sprint Goal: To enable people in need to create accounts for the application and have easy access to their needs.
Sprint Backlog:
1. Improving the way in-app account creation and login for people in need.
2. Developing a user-friendly interface for people in need to easily find and determine their needs.
3. Integrating into the application the feature of determining the location of people in need and finding the closest food facilities to user location and showing the distance between the two.

Sprint 3: Safe food delivery

Sprint Goal: Showing the locations of food businesses and providing security for the delivered foods.
Sprint Backlog:
1. Developing a feature that shows the locations of nearby food businesses.
2. Using the standarts of the food businesses for the safety of the food.
3. Acceptance of the food donated and the process food inspection.

Sprint 4:
Sprint Goal: To ease the process of finding foods that meet the users needs and demands.
Sprint Backlog:
1.To develop the ability of filtering foods in order to fit the users' needs.
2.Adding the ability for users to view the food stock status of food establishments located in specific locations the users are living in, in order to improve user experience.

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Sprint 5
Sprint Goal:To add the capability for producers to make donations to the application.

Sprint Backlog:
1)Develop screens for user registration and login. Create separate login screens for wholesalers and producers. Implement email verification or other security measures. Create interface for producers to make food donations.
2) Design a dedicated panel or page for producers. Add a form where they can input details of the products they wish to donate. Implement a file upload function for adding visuals (product images, expiration date labels, etc.). Allow them to select the quantity and type of products they are donating.

Sprint 6
Sprint Goal: Enabling users to report their problems or compliments to administrators about foods.

Sprint Backlog:
1. Implement user interface for problem reporting.

2. Adding problem categorizes to the problem reporting interface to solve the problem faster.

3. Implement notification system for problem reports.

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REASONS TO CHOOSE THIS MODEL:

*Flexibility and Ensuring Functionality: The Food Bridge project has a complex relationship between donors, those in need, other stakeholders and governments. Factors such as user needs, quality, quantity and timing of food donations may constantly change. Scrum's flexible approach can quickly adapt to these variations. Each new sprint cycle is based on user feedback and iterates based on changing requirements. This way, the project team can ensure valuable functionality by consistently prioritizing the most important work.

*Frequent Iterations: Scrum's short sprint cycles ensure that the project is checked frequently and at intervals by receiving constant feedback from those in need and donors who will use the Food Bridge application. In this way, the final version of the product is ensured to constantly gain value and improve.

*User Focused: The first purpose of the Food Bridge application is to unite donors and those in need at the same point by meeting their wishes and needs. Scrum releases a product at the end of each Sprint cycle, presents it to users, gives users the chance to test the developed product, and allows users to give feedback, allowing the Scrum Team to respond to user needs more quickly. In this way, a user-oriented product is created.

*Early Problem Detection Possibility: Food Bridge application has great responsibilities affecting human health. Food quality control, user satisfaction is always a risk for the project. Compared to other models, Scrum's frequent iterations enable early problem detection and management of project risks. Thus, any problems that may arise in the project can be identified at the end of each Sprint and rapid actions can be taken to solve them.

*Team Collaboration: Sprint Planning allows the team to determine the tasks that the team must complete during the Sprint. Sprint Review ensures that the Sprint result is evaluated together with developers and stakeholders. Additionally, Daily Scrum meetings enable the team to stay in touch and solve the problems they encounter together.

*Quick Use of the Product: Once the Food Bridge application is put into use, its use should not be stopped for a long time. In such a situation, people in need will be victimized. Scrum has frequent sprint cycles, so that at the end of each Sprint cycle, the product is developed and made available to the user again without wasting time.

*Correct Determination and Management of Costs: One of the main determinants of a project is the resource and cost. In addition to the software costs, the Food Bridge application also needs hardware devices to store big data. Each Sprint cycle result that Scrum has is proof that the project is in the right direction or not. Thus, unnecessary resource use and costs are prevented. At the end of each Sprint, the estimated resources and costs are determined and the project is shaped accordingly.

*Responsibility and Different Perspectives: Scrum; it consists of Product Owner, Scrum Master and Development Team. In Scrum, there are tasks assigned to each person for each Sprint, ensuring that everyone is responsible for the project. Scrum's inclusion of people in different roles enables different perspectives to emerge in the development of the project.

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