IZMIR UNIVERSITY OF ECONOMICS

SOFTWARE PROJECT MANAGEMENT, SE315

UNE: Union For Everyone

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1 | Overview

1.0.1 Problem Definition

In terms of socialization, global outreach, and seeking collaborators for individual activities, there are many apps that are hard to find and complex, our mission is to deliver an app that puts everyone under one roof and offers a range of solutions.

1.0.2 Background Information

When we look at the apps available in the market, there are different solutions for different problems, however, our goal is to create an app which gives end users to use our app for many tasks.

1.0.3 Objectives

- Build a chat panel for people to interact easily with each other.
- An announcement panel and an activity panel for invitations
- A subscription program that keeps track of user activities.
- Implementation of a reward program that awards rewards to those who are highly successful on the website and on social events.
- Providing a Premium and Unrestricted Member Hierarchy A Decision Framework for Activities and Social Obligations The Commercial Protocol allows stakeholders to benefit from ads.
- A follow-up program gives people the opportunity to keep track of their activities by creating an automatic event through Google Calendar whenever the user enters the website using their Google Account.

1.0.4 Scope

From the point of view of the design, we have decided to create an app that takes a lot of different tasks under its belt while being easy and useful.In terms of the design process, we figured it would be as simple as possible and available on any device, such as IOS, windows, android, etc. In addition, the user-face of our software should be user-friendly and easy to use for all ages. The coding part of the project will be determined in the future through research on optimal performance and up-to-date functionality.For documentation purposes, GitHub, LaTeX and Microsoft Office will be used to generate comprehensive details for those working on our project.

2 | High-Level Functionality

2.0.1 Functional Requirements

- Users will have the ability to log in to the network.
- The app will have a method of user registration.
- The software will have a chat room for users to connect with.
- A feed should be provided for users to see announcements and events.

- The software would allow users to build their profile using their names, surnames, phone numbers, addresses and other common social media accounts.
- The app will provide a payment mechanism for membership of the premium.
- A rating system will be put in place to see the most involved users.
- The software will have an announcement section to let people know the activities and events of the user.
- The app should have a categorization feature that categorizes events to user expectations such as social events.
- The app will have the ability to request a new password via a special passcode that can be found in the e-mail address of the user.

2.0.2 Non-Functional Requiremets

- When the website is used more often, the storage may need to increase the capacity available.
- The website must efficiently store the data and predict the remaining time before all free capacity is filled in.
- Acknowledged criteria and architectural practices should also be followed when designing the foundation structure
- To eliminate any data failure, the system will restore data rather regularly (e.g. each fortnight).
- The application will be usable on a broad range of computing environments, such as varying android devices, reliability and speed of Internet connectivity.
- Members must be signed in to access messages and accounts of individuals.
- The new backups will be recovered automatically in the case of a tragedy, ensuring that perhaps the device is down for much less than an hour

3 | Stakeholders

3.1 Pre-Defined Stakeholders

Established Participants

#	**Stakeholders**	**Description**
1	Engineers	This is affected by progress directly. He is creating the program that is going to used.
2	Manager	Manager is the head of the project.
3	Tester	Tester shares the same part of the project with software engineer.
4	User	User is the customer side of the project. So, it has an important role in the progress.
5	People affected by social responsibility	These stakeholders have affected indirectly because of they neither the producer side nor the customer side of the project. However, the actions of the users play a role for them.

4 | Project Staffing

4.1 Coder

Every week he will be responsible for writing and retaining the appropriate codes for the project, whenever he can.

4.2 Technical Writer

He will write the project report and keep track of the users progress and post corresponding update announcements.

4.3 Tester

He must check the codes of the coder and submit them so it can be patched to the project manager.

4.4 Requirements Engineer

He will be responsible for defining the stake holders and requirements for the projects.

4.5 Project Manager

He will manage everything in every case so all thing will go on its track by using management tools and social skills.

4.6 Designer

He will design the convinient UI for optimal usage.

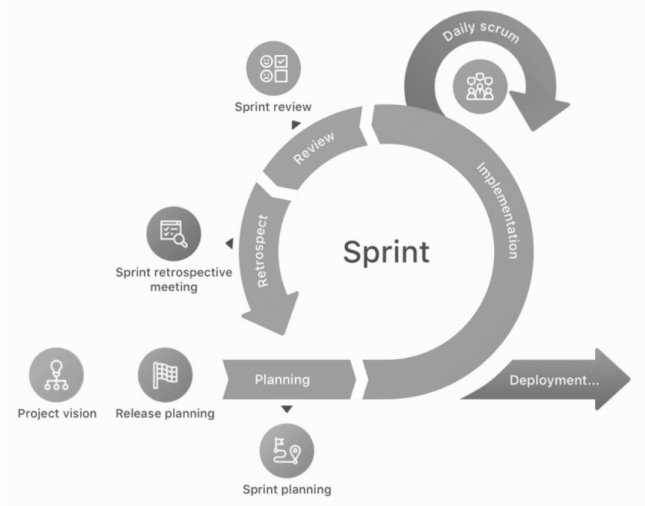
5 | Software Process Model

5.0.1 Software Process Description

Scrum is an agile project management methodology or comprehensive framework used primarily for software development projects with the ultimate goal of efficiently delivering new software capability every 2-4 weeks. That is one of the possible solutions that shaped the Agile Strategy, articulating a successful series of ethical standards and considered beliefs that direct comprehensive assessments about how to adequately develop sophisticated software of greater quality more rapidly.

5.0.2 Reason to Choose This Method

Since Scrum requires for quick input, it has proved itself in many other fields than apps and has been widely relevant to cognitively demanding team research on information. With Scrum you will develop the mental muscle of a team and then apply it. When Scrum is implemented carefully, a well-trained team should concentrate on creating value for business



5.0.3 Necessary Needs From the Organisational Process

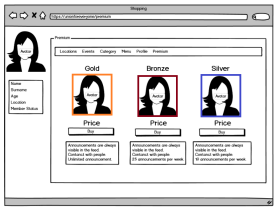
- Continuous testing
- Rapid feedbacks
- Product backlog
- Face to face conversation
- Maintain small release cycle
- Test-Driven development
- Refactoring
- Costrumer Involvement

5.0.4 Unnecessary Needs From the Organisational Process

- Pair-Programming

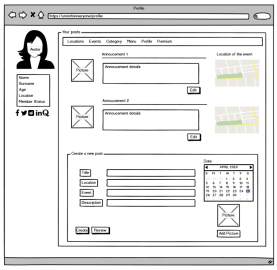
6 | Graphical User Interfaces

HomePage



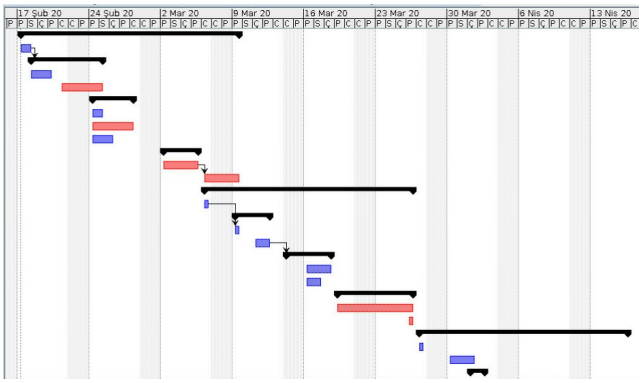
Premium

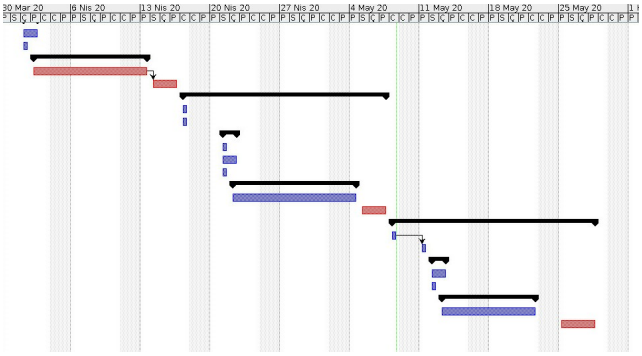
Location



Profile

7 | Schedule and Effort





		Ad	Süre	Başlat	Bitirme	Önceki
1		**Sprint #1**	15,875 ...	**17.02.2020 09:00**	**9.03.2020 17:00**	
2		Sprint Planning	1 gün	17.02.2020 09:00	18.02.2020 09:00	
3		**Requirements Gathering**	5 günler	**18.02.2020 09:00**	**25.02.2020 09:00**	2
4		Background Reading	2 günler	18.02.2020 09:00	20.02.2020 09:00	
5		Analyze Requirements	2 günler	21.02.2020 09:00	25.02.2020 09:00	
6		**Design**	4 günler	**24.02.2020 09:00**	**28.02.2020 09:00**	
7		UML Desgin Creation	1 gün	24.02.2020 09:00	25.02.2020 09:00	
8		Architecturel Design	4 günler	24.02.2020 09:00	28.02.2020 09:00	
9		GUI Design	2 günler	24.02.2020 09:00	26.02.2020 09:00	
10		**Coding**	4 günler	**2.03.2020 08:00**	**5.03.2020 17:00**	
11		Structured Programming	4 günler	2.03.2020 08:00	5.03.2020 17:00	
12		System and User Testing	2 günler	6.03.2020 08:00	9.03.2020 17:00	11
13		**Sprint #2**	15 günler	**6.03.2020 08:00**	**26.03.2020 17:00**	
14		Sprint Planning	1 gün	6.03.2020 08:00	6.03.2020 17:00	
15		**Requirements Gathering**	4 günler	**9.03.2020 08:00**	**12.03.2020 17:00**	
16		Background Reading	1 gün	9.03.2020 08:00	9.03.2020 17:00	14
17		Analyze Requirements	2 günler	11.03.2020 08:00	12.03.2020 17:00	
18		**Design**	3 günler	**14.03.2020 08:00**	**18.03.2020 17:00**	17
19		Architecturel Design	3 günler	14.03.2020 08:00	18.03.2020 17:00	
20		GUI Design	2 günler	15.03.2020 08:00	17.03.2020 17:00	
21		**Coding**	6 günler	**19.03.2020 08:00**	**26.03.2020 17:00**	
22		Structured Programming	6 günler	19.03.2020 08:00	26.03.2020 17:00	
23		System and User Testing	1 gün	26.03.2020 08:00	26.03.2020 17:00	
24		**Sprint #3**	15 günler	**27.03.2020 08:00**	**16.04.2020 17:00**	
25		Sprint Planning	1 gün	27.03.2020 08:00	27.03.2020 17:00	
26		Requirements Gathering	3 günler	28.03.2020 08:00	1.04.2020 17:00	
27		**Design**	2 günler	**1.04.2020 08:00**	**2.04.2020 17:00**	

		Ad	Süre	Başlat	Bitirme	Önceki
27		**Design**	2 günler	**1.04.2020 08:00**	**2.04.2020 17:00**	
28		Architecturel Design	2 günler	1.04.2020 08:00	2.04.2020 17:00	
29		GUI Design	1 gün	1.04.2020 08:00	1.04.2020 17:00	
30		**Coding**	8 günler	**2.04.2020 08:00**	**13.04.2020 17:00**	
31		Structured Programming	8 günler	2.04.2020 08:00	13.04.2020 17:00	
32		System and User Testing	3 günler	14.04.2020 08:00	16.04.2020 17:00	31
33		**Sprint #4**	15 günl...	**17.04.2020 08:00**	**7.05.2020 17:00**	
34		Sprint Planning	1 gün	17.04.2020 08:00	17.04.2020 17:00	
35		Requirements Gathering	1 gün?	17.04.2020 08:00	17.04.2020 17:00	
36		**Design**	2 günler	**21.04.2020 08:00**	**22.04.2020 17:00**	
37		UML Desgin Creation	1 gün	21.04.2020 08:00	21.04.2020 17:00	
38		Architecturel Design	2 günler	21.04.2020 08:00	22.04.2020 17:00	
39		GUI Design	1 gün	21.04.2020 08:00	21.04.2020 17:00	
40		**Coding**	9 günler	**22.04.2020 08:00**	**4.05.2020 17:00**	
41		Structured Programming	9 günler	22.04.2020 08:00	4.05.2020 17:00	
42		System and User Testing	3 günler	5.05.2020 08:00	7.05.2020 17:00	
43		**Sprint #5**	15 günler	**8.05.2020 08:00**	**28.05.2020 17:00**	
44		Sprint Planning	1 gün	8.05.2020 08:00	8.05.2020 17:00	
45		Requirements Gathering	1 gün	11.05.2020 08:00	11.05.2020 17:00	44
46		**Design**	2 günler	**12.05.2020 08:00**	**13.05.2020 17:00**	
47		Architecturel Design	2 günler	12.05.2020 08:00	13.05.2020 17:00	
48		GUI Design	1 gün	12.05.2020 08:00	12.05.2020 17:00	
49		**Coding**	8 günler	**13.05.2020 08:00**	**22.05.2020 17:00**	
50		Structured Programming	8 günler	13.05.2020 08:00	22.05.2020 17:00	
51		System and User Testing	4 günler	23.05.2020 08:00	28.05.2020 17:00	

8 | Measurements

8.1 Questions to Identify Measurements

1. How much effort did this project require?
2. Did the project adhere to its schedule?
3. What did the team produce?
4. How good is the product?
5. What is the project lacking of?
6. What is the product good ofr?
7. What is being produced?

8.1.1 Identified measurements

1. Code updates everyweek
2. User feedback consederation each week.
3. Code documentation after every feedback cycle.
4. Its because this project is a micro service one, people may extend their usage according to their personal preferences.
5. Online meeting every week.

8.1.2 Measurement Storage and Collection

During the registration we will create our database by taking user information. Reciving user acitivies' allows us to keep tracking and analysing the data in terms of user behaviour. By creating polls every now and then in the program itself we would be able to make extended version of public polls. This allow other companies to get feedback although they are not implementing this intrinsically. Measurements will be done in 4 hours by the maintanance engineer every end of second month via analyzing the data base and the collected information through our backup logs. By our management these changes and updates will be documented in pre-specific project spreadsheet.

Measurement Types, Descriptions, and Examples

#	Measurement Type	Description	Example Measurements
1	Product size measurement	Comment lines.	700
2	Product size measurement	Executable lines.	15000
3	Effort measurement	The time spent on the project.	5 hours a day
4	Project specific measurement	Database management system	1000 user per month
5	Project specific measurement	Java Swing For GUI	5000 lines of codes
6	Project specific measurement	Data analysis	500 click each day for advertisement
7	Project specific measurement	Data visualization	10 graph of user activity each week

9 | Project Risks

9.1 Assessment of Probable Risks and Rankings

Risks and their likely happenings

Likelihood Rank	Risk Description
1	Budget Deficit
2	Requirements validation
3	Braking of the user agreement and usage of the program in violent way i.e arrangement
4	Design complexity could confuse customers
5	Employee's inadequate experiences in the aimed field
6	Because we are presenting a macro service model, customers could lean towards micro services
7	Event of an pandemic i.e COVID-19

9.2 Impacts of The Assessed Risks in Order

Impact rank for our project

Impact Rank	Risk Description
1	Budget Deficit
2	Requirements validation
3	Event of a pandemic i.e COVID-19
4	Breaking of the user agreement and usage of the program in a violent way i.e arrangement of group activity by a criminal.
5	Design complexity could confuse customers
6	Employee's inadequate experiences in the aimed field.
7	Because we are presenting a macro service model, customers could lean towards microservices.

9.3 Combination of Risks and Impacts

Combined Rank for the impactfulness

Likelihood Rank	Impact Rank	Combined Rank	Risk Description
1	1	2	Budget Deficit
2	2	4	Requirements validation
4	3	7	Breaking of the user agreement and usage of the program in a violent way i.e arrangement of group activity by a criminal.
4	5	9	Design complexity could confuse customers
7	3	10	Event of an pandemic i.e COVID-19
5	6	11	Employee's inadequate experiences in the aimed field.
7	6	13	Because we are presenting a macro service model, customers could lean towards microservices.

10 | Software Tools

10.1 Tasks Which Require Tool Back Ups

Task #	Project Tasks Which Require Software Tool Support
1	Requirement Specification
2	Functional Testing
3	Code Analysis and review

10.2 Tool Cost, Training, Functionality Data For Task 1

Tool	Accompa	Visure Require-ments	Jama Software	Jira Soft-ware
Cost	4000TL	9000TL	2500TL	16500TL
Training Days	5	8	2	11
Functionality	35	70	25	90

10.3 Normalized Cost, Training, Functionality Data for Task 1

Tool	Accompa	Visure Require-ments	Jama Software	Jira Software
Cost	24.2	54.5	15.6	100
Training Days	45.5	72.7	18.2	100
Functionality	38.9	77.8	27.8	00

10.4 Every Evaluation On Graph

Normalized Tool Comparison

10.5 The Selected Tools for Task 1 with Reasons

We have invested aggressively on this particular software; the precautionary reason for that is, this is the most crucial part for us in our project compared to any other relevant sub-subjects. Under the light of the disscussion, we have decided that we have come to the conclusion that the Visure Requirements is the exceedingly suitable software in order to accomplish what we have designed.

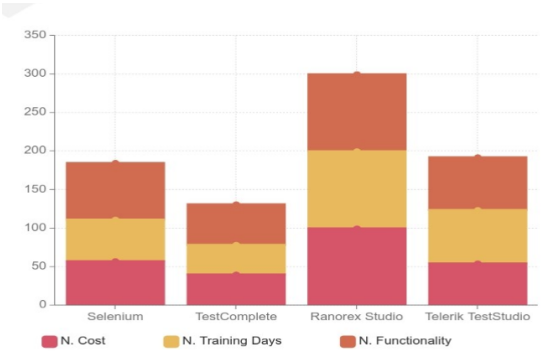
10.6 Tool Cost, Training, Functionality Data For Task 2

Tool	Selenium	TestComplete	Ranorex Studio	Telerik TestStudio
Cost	1000TL	7000TL	17400TL	9500TL
Training Days	7	5	13	9
Functionality	70	50	95	65

10.7 Normalized Cost, Training, Functionality Data for Task 2

Tool	Selenium	TestComplete	Ranorex Studio	Telerik TestStudio
Cost	57.5	40.2	100	54.6
Training Days	53.8	38.5	100	69.2
Functionality	73.7	52.6	100	68.4

10.8 Every Evaluation On Graph



Normalized Tool Comparison

10.9 The Selected Tools for Task 2 with Reasons

We naturally have chosen the TestComplete tool because of the budget deficit and its closeness to valuable tools although its cost-benefit is considerably higher than any other.

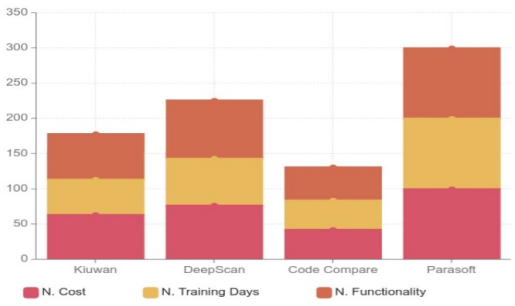
10.10 Tool Cost, Training, Functionality Data For Task 3

Tool	Kiuwan	DeepScan	Code Compare	Parasoft
Cost	12000 TL	14500 TL	8000TL	18900
Training Days	6	8	5	12
Functionality	55	70	40	85

10.11 Normalized Cost, Training, Functionality Data for Task 3

Tool	Kiuwan	DeepScan	Code Compare	Parasoft
Cost	63.5	76.7	42.3	100
Training Days	50	66.7	41.7	100
Functionality	64.7	82.4	47.1	100

10.12 Every Evaluation On Graph



Normalized Tool Comparison

10.13 The Selected Tools for Task 3 with Reasons

We have examined the Code Compare software but we are not able to fit the price of it into our budget. That is why we have chosen Kiuwan because its second expensive software in the line.

11 | Projects Needs

11.1 Software Needs

#	Software Needs	Description
1	Operating System	Linux, Ubuntu and Windows 10
2	Compiler	Intellij Idea, NotePad++ and MySQL
3	Configuration Management System	Ansible
4	Codes Library	Corresponded library's for the purpose
5	Time management tools	Excel

11.2 Hardware Needs

#	Hardware Needs	Description
1	Laptop	Intel Core i9 - 32GB Memory - NVIDIA GeForce RTX 2080 - 1TB HDD + 256GB SSD
2	Back-up HDDs	Western Digital My Passport Ultra 4TB external hard drive
3	USB Sticks	SanDisk Cruzer CZ36 32GB
4	Codes Library	Corresponded library's for the purpose
5	Additional Monitor	LG 27 inch 27UL500-W IPS 4K HDR 10 RADEON FreeSync HDMI.

11.3 Support Needs

#	Support Needs	Description
1	Documentation	LaTeX
2	Human resources	G-Mail, Customer Support
3	Office Administration	MySQL
4	System Administration	MySQL

12 | Conclusion

This document explains every step of our project in detail, each section contains different aspects of the project's development plan. During the progress this document might be helpful to catch up with the current statement of the project.