

# **PROJECT PLANNING & MANAGEMENT FORM CMSE 201**

**GROUP NO: 8**

**PROJECT NAME: Websites Evaluation Using Opinion Mining.**

**PROJECT START DATE: 9<sup>th</sup> March 2021**

**PROJECT END DATE: 14<sup>st</sup> June 2021**

**SEMESTER TERM: Spring 2021**

Project Type: Software Design & Development Project  
Template updated: 9.03.2021

## A.1. Preliminary Project Information

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### A.1.1

Project No	8
Project Name	Website Evaluation Using Opinion Mining
Start Date	9 <sup>th</sup> March 2021
End Date	14 <sup>st</sup> June 2021
Time	14 weeks

### A.1.2

Project Manager			
Name Surname	Seyit Ahmet Inci	ID No	19331143
Title/Role	Team leader and programmer		
Address	Famagusta/ TRNC		
Phone	+905488610166		
Email	<a href="mailto:19331143@emu.edu.tr">19331143@emu.edu.tr</a>		

## A.2 Group Information

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### A.2.1

Student 1			
Name Surname	Sinem İmge Turgut	ID No	19001316
Title/Role	Web application and system developer		
Address	Famagusta/ TRNC		
Phone	+905528161704		
Email	<a href="mailto:19001316@emu.edu.tr">19001316@emu.edu.tr</a>		

Student 2			
Name Surname	Abraham Henry Atogwe	ID No	19701310
Title/Role	Project's tester.		
Adress	Famagusta/ TRNC		
Phone	+2348135540199		
Email	Loveatogwe@gmail.com		

Student 3			
Name Surname	Khawlah Al-shubabti	ID No	19701557
Title/Role	Database and user interface Designer.		
Adress	Famagusta/ TRNC		
Phone	+905338341999		

Email	<a href="mailto:19701557@emu.edu.tr">19701557@emu.edu.tr</a>
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## A.2.2

List of Completed / Ongoing Projects of Team
<ul style="list-style-type: none"> <li>● Voice recognition software</li> <li>● Unity mobile game development</li> <li>● Text recognition software</li> <li>● Image and Video watermarking project research</li> </ul>

## B.1 Introduction to Project

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### B.1.1

Summary of Project
<p>RatingWeb is an advanced website evaluation system that rates different websites based on the users' opinion.</p>

### B.1.2

Key Words
<p>Opinion mining.  Users' opinion.  Rating websites.  Evaluate websites.  Best website.  Useful websites.</p>

### B.1.3

Aim of Project
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The aim of the WebRating System is to help users identify the genuineness of the websites they are using and to know which website is better by the opinion of other users.

#### B.1.4

##### **Innovative Aspects/Contributions of Project**

The customers wanting to buy the product would like to compare the products and the services provided by different websites before purchasing the product. The services and all the parameters related to the website can't be compared on the existing system. Therefore; it makes it difficult for the customers to decide. Although the websites would be rated but comparing the websites would make it more efficient and can provide clear options for better products.

#### B.1.5

##### **Methods to be Applied**

The WebRating system will be designed using many tools such as Visual Paradigm, Microsoft Visio, and Visual Studio Code for coding. Furthermore, Microsoft Project tool is used to manage and schedule the project.

#### B.1.6

##### **Economic and National Outcomes**

Website quality evaluation in an efficient and efficacious way  
help save time and money in design  
automated support for web designers and web site owners  
by the help of this information users may learn about the websites and in turn choose a website which is suitable according to their standards.

## B.2 Reason of Starting the Project, Methods and R&D Stages

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#### B.2.1

1- Explain the reason of starting this project. (Max 500 character)

Considering all the information available on the web every individual should desire to find and access useful information. For example, users want to learn about different shopping web sites and what products and services they offer using the web. By the help of this information users may learn about the websites and in turn choose a website which is suitable according to their standards.

## 2- Explain the purpose of this project.

The propose is an advanced Website Evaluation system that rates the website based on the opinion of the user. Website will be evaluated based on factors such genuineness of the website, timely delivery of the product after online transaction and support provided by the website. User will comment about the website, based on the comment system will rate the website. The system takes opinion of various users, based on the opinion; system will decide whether the website is genuine or not. The system uses opinion mining methodology in order to achieve desired functionality

## 3- Explain

- **output of project**
- **national / international standards if exist**
- **the specific objectives of the project**
- **success criterias**
- **realistic constraints**

- **The output of** the general objective of this study is to examine web evaluation using opinion mining by providing users with a rating generated according to the shopping website's performance and standards.
- **Specific objectives:**
  - To setup rapid miner for opinion mining
  - To evaluate ways of using rapid miner setup to checkmate online shopping
  - To evaluate how customers can access the shopping websites from anywhere with the help of the internet rapid miner
- **Realistic constraints of** this study is limited to we evaluation using opinion mining to understand a new toll online shopping has taken

## 4- Explain

- **the methods to be applied during R&D activities**
- **applications**
- **technics and tools to be used**
- **standards to be followed under the workflow**

*Which SOFTWARE PROCESS MODEL in below will you apply? Why? How? Explain.*

*\* The waterfall model?*

*\*V-model of software process?*

*\*Evolutionary development?*

*\*Component-based software engineering? Etc.*

**Explain, Project Workflow:**

Will evaluate shopping sites based on reviews or opinions of experienced customers. It is better if the performance of the website is processed according to certain parameters. Based on these parameters, a specific website rating is created that helps the client decide which website to choose.

**1. Feasibility and Pre-research:**

Opinion mining, because the name implies, is that the mining (extracting) of opinions regarding the merchandise, event, services, etc. announced by Various folks on the net. Thanks to the large enlargement of the net, folks are inspired to contribute themselves with blogs, social networking sites, etc. an outsized volume of knowledge is created thanks to these platforms that require being well-mined (extracting helpful patterns) for analysis and higher cognitive process.

**2. System Design:**

The system is joining most understood digging calculations for arrangement, grouping, and relapse; it additionally contains modules for specific assignments, for example, content mining and examination of gushed information. Fast Miner is a GUI based device; however, mining assignments can likewise be scripted for cluster mode preparing.

**3. Software development:**

The project is an open-source information mining and learning disclosure instrument written in Java.

#### **4. Prototype implementation and testing work:**

The Nominal to Text administrator changes over every single ostensible credit to string traits. Every ostensible esteem is just utilized as a string estimation of the new quality. On the off chance that the esteem is absent in the ostensible quality, the new esteem will likewise be missing.

#### **5. Maintenance:**

For quality assurance and quality control high techniques shall be used, feedback shall be gotten from users of this system, bugs shall be recorded and continuously fixed, same for other issues and proposed improvements

#### **5- Explain**

- the contribution of national/international technological development if exist
- starting a new research and development projects within or outside the team
- launch new applications or research studies in different technology areas

**With whom we can cooperate?**

**Expectations:**

**Published work:**

**Can your output be an input for other similar national/international projects?**

**This project had contributed to the research in website usability in two aspects :**

- It summarises many website usability issues and groups the issues into a set of 24 usability guidelines. The guidelines can be used to evaluate usability of websites as well as help Web designers and developers to build more usable websites.
- It uses the usability guidelines to build an evaluation tool , which can assist webmaster to improve their websites. The tool , namely WEBUSE , allows visitors to a website to perform evaluation on the website. Based on the responses provided by those visitors , webmaster will know the good and bad usability aspects of their websites from perspective of the visitors.

we have observed that "website evaluation using opinion mining" has given great results in extraction of information from the huge data that in sense is the comment from the user and analyzing it to be overall positive or negative .

## B.3 Innovative and Unique Aspects

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### B.3.1

#### 1- Describe

- differences
- advantages
- superiority

compared to other similar projects.

#### Differences:

- Find out which website will deliver the production time.
- Helps to find out whether the website is genuine or not.
- Helps to find out which will provide good support.

#### Advantages:

- User can easily share his view about the website.
- Since system ranks the website based on the weight age of the keywords in database, so the result is appropriate
- This application is more useful for those who do online transactions.

#### Superiority:

- Prevents users from becoming victims of fraud.
- Will give a detailed questionnaire about the service or customer feedback.
- On the basis of data availability, our system can be extended to different sectors.

### B.4.1

#### 2- Who can contribute to this project in your team?

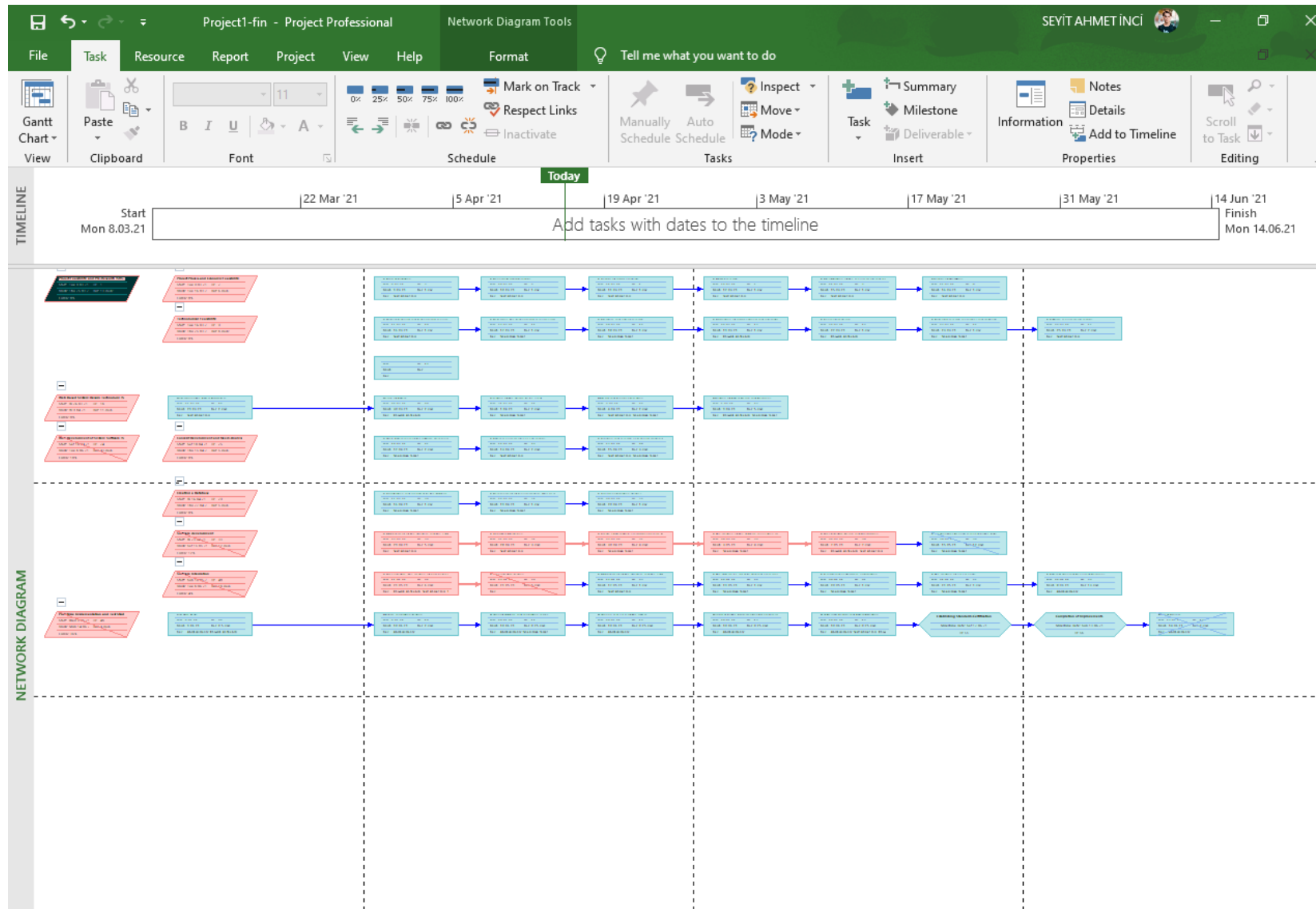
Project Manager  
System Designer  
Database Developer  
Interface Designer  
Lead Programmer



### C.1.1 Gantt Chart

[illegible]

# Network Diagram:



Work Package Name	Expected Time $[(o+4r+p)/6]$	Optimistic Time	Realistic Time	Pessimistic Time
Feasibility Studies and Pre-research	12,99666667	13,98	15	4
System Design	14,05	13,3	14	15
System Development	42,33333333	41	42	45
User Interface and Database Designing	15	14	15	16
Testing and maintenance stage	8,05333333	7,32	8	9

### C.1.2 List of Work Packages

<b>Work Package No</b>	1
<b>Work Package Name</b>	<b>Project Feasibility and Pre-Research (Feasibility Analysis)</b>
<b>Start-End Date and Time</b>	9 <sup>th</sup> March to 25 <sup>th</sup> March 2021
<b>Related Organizations</b>	

<b>1- List the activities of work packages.</b>
<p><b>1.1 Project Process and Economic Feasibility:</b></p> <ol style="list-style-type: none"> <li>1- project initiation</li> <li>2- Identification of the requirements and cost analysis of relevant sectors</li> <li>3- Workflow Analysis.</li> <li>4- Analysis of related products</li> </ol> <p><b>1.2 Technological Feasibility:</b></p> <ol style="list-style-type: none"> <li>1- Output technical and technological requirements analysis.</li> <li>2- Determining the Technological resources.</li> <li>3- Examination of similar national and international projects.</li> <li>4- Conceptual design</li> <li>5- Software requirements analysis.</li> </ol>
<b>2- Describe the methods and parameters that will be used for work package.</b>
<ul style="list-style-type: none"> <li>• Internet research.</li> </ul>
<b>3- List the experiments, tests and analysis in the work package.</b>
<ul style="list-style-type: none"> <li>• Economic market and outcomes test.</li> <li>• Technological requirements and users' needs test.</li> <li>• Project process flow test.</li> </ul>
<b>4- List the output of work package and its success criterias.</b>
<p><b>Outputs:</b></p> <p>Complete guides found from the research in addition to economic and technological feasibility study.</p> <p><b>Success Criteria's:</b></p> <p>By this project is ready to start working on since it will be approved and the initial requirements are well documented.</p>
<b>5- Explain the relation of output with other work packages</b>
<p>This is considered the first stage of developing the project. It holds the basics and main documents needed to start designing the data of the project.</p>

<b>Work Package No</b>	2
<b>Work Package Name</b>	Based System Design Technology (Analysis & Design stage)
<b>Start-End Date and Time</b>	26 <sup>th</sup> March to 9 <sup>th</sup> April 2021
<b>Related Organizations</b>	

#### 1- List the activities of work packages.

- Determining the language to be used
- Design of systems
- Material and supplier selection
- Evaluation of System and revision

#### 2- Describe the methods and parameters that will be used for work package.

- Visual Studio
- Customer feedback

#### 3- List the experiments, tests and analysis in the work package.

- General Design specification
- Review preliminary software specifications
- Develop functional specifications
- Design of system
- Develop prototype based on functional specifications
- Incorporate feedback into functional specifications
- Obtain approval to proceed
- Time analysis and budget analysis
- Effort estimation and cost of estimation
- Managing Risks

#### 4- List the output of work package and its success criterias.

##### Outputs:

- Prototype of the project
- Dataflow diagrams
- The plan of the project

##### Success Criteria's:

By doing all previous steps we will be ready to start developing the system in addition to completing the design of the system.

#### 5- Explain the relation of output with other work packages

Putting the right effort on this stage will make the work easier for us in the coming stages. Furthermore, Analyzing will strongly help in understanding the project criteria and thus made the project stand out.

<b>Work Package No</b>	3
<b>Work Package Name</b>	<b>Development of System Software (Development Stage)</b>
<b>Start-End Date and Time</b>	<b>10<sup>th</sup> April to 8<sup>th</sup> June 2021</b>
<b>Related Organizations</b>	

#### **1- List the activities of work packages.**

- Creating the database
- Coding and debugging
- Algorithm modeling
- User interface and system testing

#### **2- Describe the methods and parameters that will be used for work package.**

- Visual studio for coding
- UI design
- Database implementation

#### **3- List the experiments, tests and analysis in the work package.**

- Using professional tools for coding and programming
- Assign development staff
- Database Analysis
- Algorithmic Analysis

#### **4- List the output of work package and its success criterias.**

##### **Outputs:**

- Database and the desired codes are ready
- Developed user interface
- Connection with all other websites

##### **Success Criteria's:**

- Dataflow correctness
- Effective database design
- The Database must hold a large amount of information.

#### **5- Explain the relation of output with other work packages**

In this stage the program for the WebRating system will be ready in addition to the database. By improving the user interface and building the right database that will help connecting users to all other websites that they are using, now the program is ready to move to its last stage which is Testing and maintenance stage.

<b>Work Package No</b>	4
<b>Work Package Name</b>	<b>Prototype Implementation and Test Study and Maintenance (Test &amp; Maintenance stage)</b>
<b>Start-End Date and Time</b>	<b>9<sup>th</sup> June to 14<sup>th</sup> June 2021</b>
<b>Related Organizations</b>	

#### **1- List the activities of work packages.**

- Back and front-end testing
- System evaluation
- Unit and integration testing
- Database testing

#### **2- Describe the methods and parameters that will be used for work package.**

- Database testing
- Interface testing by all team members
- Testing real users' opinions about project usability
- Analysis of Algorithms

#### **3- List the experiments, tests and analysis in the work package.**

- Unit and Integration Testing
- Review the codes
- Modify codes if needed
- Re-test modified codes if needed
- Completion of testing stage.

#### **4- List the output of work package and its success criteria's.**

##### **Outputs:**

Reporting test results and the project is ready to be released

##### **Success Criteria's:**

The Website should pass all the testing criteria perfectly with all errors fixed.

#### **5- Explain the relation of output with other work packages**

By completing this stage, the project is ready to be released and used by users under the condition that all expected results are satisfying.

### C.1.3 List of Milestones (should be matched in the Gantt chart)

	Description of Output	Expected Time Interval
<b>Example:</b>	<b>Feasibility Studies</b>	<b>01.07.2014 – 30.09.2014</b>
1	Feasibility Studies and Pre-research	9 <sup>th</sup> March to 25 <sup>th</sup> March 2021
2	System Design	26 <sup>th</sup> March to 9 <sup>th</sup> April 2021
3	System Development	10 <sup>th</sup> April to 21 <sup>st</sup> May 2021
4	User Interface and Database Designing	22 <sup>nd</sup> May to 8 <sup>th</sup> June 2021
5	Testing and maintenance stage	9 <sup>th</sup> June to 14 <sup>th</sup> June 2021

### C.1.4 List of Risks (see following example, write possible risks for your project!)

Risk	Probability	Effects	Your Strategy
The time required to develop the software is underestimated.	High	Serious	Build a cohesive team in which all the project requirements should be implemented in the best way possible. Use proper plan and stick to it.
Software tools cannot work together in an integrated way.	High	Tolerable	We will investigate changing or buying new tools that helps us finish our work.
Customers fail to understand the impact of requirements changes.	Moderate	Tolerable	We will prepare a brief document explaining on it everything related to the impact of requirements changes or if applicable we can just meet with the customer and understand from him what things he did not get and thus explain to him using an understandable language.
The rate of defect repair is underestimated.	Moderate	Tolerable	Replace potentially defective components with more reliable bought-in components.
The size of the software is underestimated.	High	Serious	Investigate buying SW components; Investigate use of a program generator.
Code generated by code generation tools is inefficient.	Moderate	Insignificant	Either write the code in different language or use different compilers or interpreters. Since this risk is always estimated we need to prepare high professional programmers at the first stage.
Key staff are ill at critical times in the project.	Moderate	Serious	Reorganize team so that there are more overlaps of work and people therefore understand each other's jobs.
The database used in the system cannot process as many transactions per second as expected.	Moderate	Serious	Investigate the possibility of buying a higher-performance database.



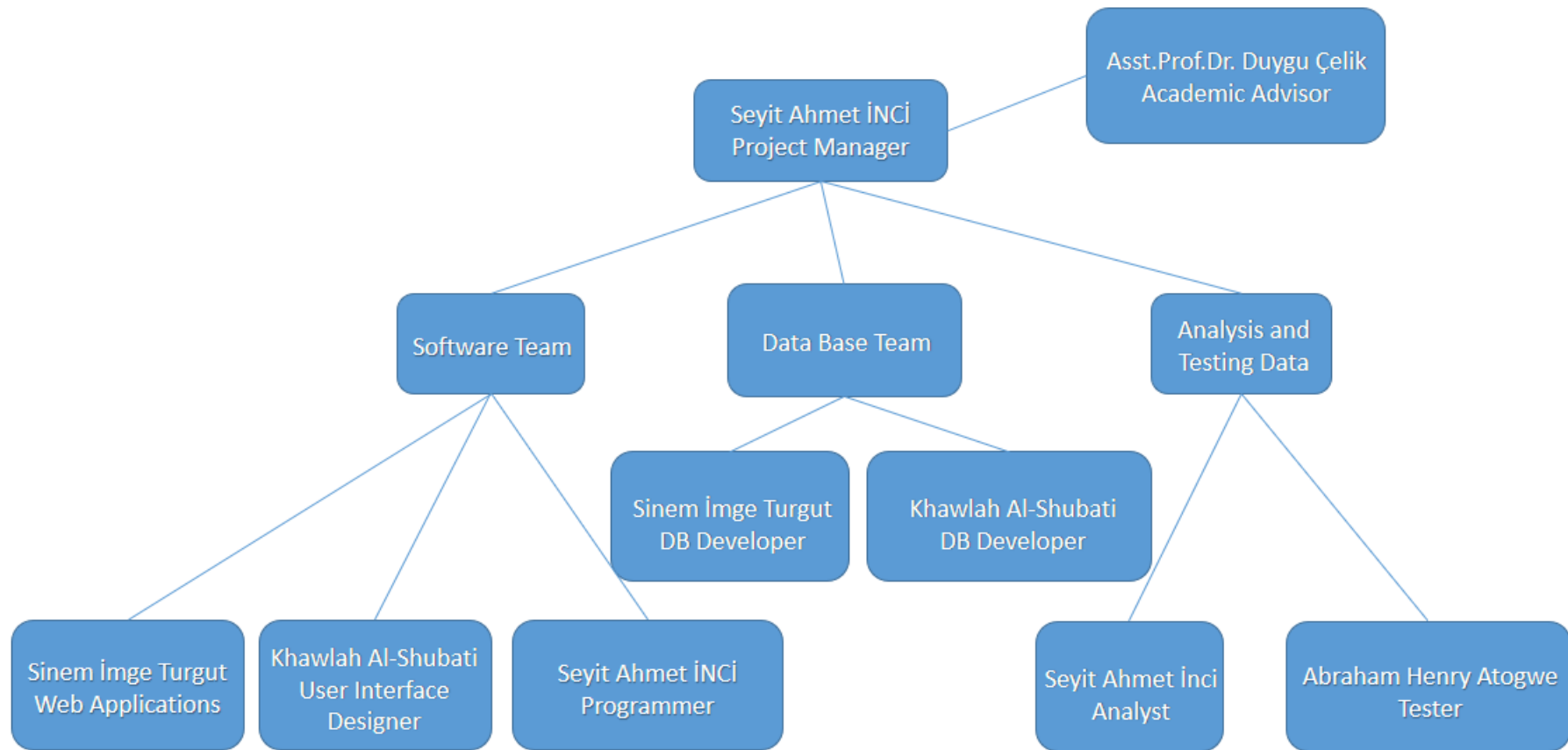
## C.2 Project Management and Organization

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### C.2.1 Project Team

Personnel Name	Title	ID	Education Status	Graduation Date	Date of Starting Work	I d e a O w n e r
Seyit Ahmet İnci	Team leader And Programmer	19331143	Bachelor Degree	2024	9 <sup>th</sup> March 2021	Y e s
Khawlah Al-Shubati	Database and user Interface designer	19701557	Bachelor Degree	2024	22 <sup>nd</sup> May 2021	Y e s
Sinem İmge Turgut	Web applications and system developer	19001316	Bachelor Degree	2024	10 <sup>th</sup> April 2021	Y e s
Abraham	Project's tester	19701310	Bachelor Degree	2024	9 <sup>th</sup> June 2021	Y e s

### C.2.2 Organization Scheme



## D.1 Economic Forecasts

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### 1- Evaluate the commercialization potential of project outcomes. List risks here?

The WebRating has huge commercialization potential because it will compare sites between all confirmed and entered sites by admin. And the RatingWeb will continue to enter new sites continuously in it. The project will be publish to global and, many user feedbacks will be gained and improvements with new features and bug fixes will be implemented

### 2- List your expectations to your team which are come by your project

Time-to-market (month):	June 2021
The expected increase in sales revenue (%):	%15
The expected increase in market share (%):	%30
Time to start to gain:	December 2021

## D.2 National Outcomes

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### 1- Specify the output that may be subject to patent, utility model and industrial design registration in the project.

The application will not implement major new inventions in mobile application design. Therefore, patent, utility model and industrial design registration will not apply to our product and we are not planning to apply for any of these in the future.

### 2- Explain the potential of project and its outputs that may have an effect on social life, education, health and etc.

This project will influence social life. Because the project is aimed at all people, it is linked to social life. Its many features will save a lot of a people's trust on the internet.

### 3- Explain the positive and negative effects of project outputs for environment and human being.

Positive effects: - Reliable websites will come forward by ratings and user comments. Then, with that websites people will be more comfortable on the internet.

Negative effects: - People may trust this application on all information of websites, which can sometimes be wrong.

There may be a bug or some incorrect information that is presented in the web-site and the person may obtain that erroneous information.

## (M013) Instrument / Equipment / Software / RELEASE PURCHASES

[illegible]

10									<b>TOTAL</b>	<b>22.740 TL</b>

## (M030) Quarterly Estimated Cost Form (TL)

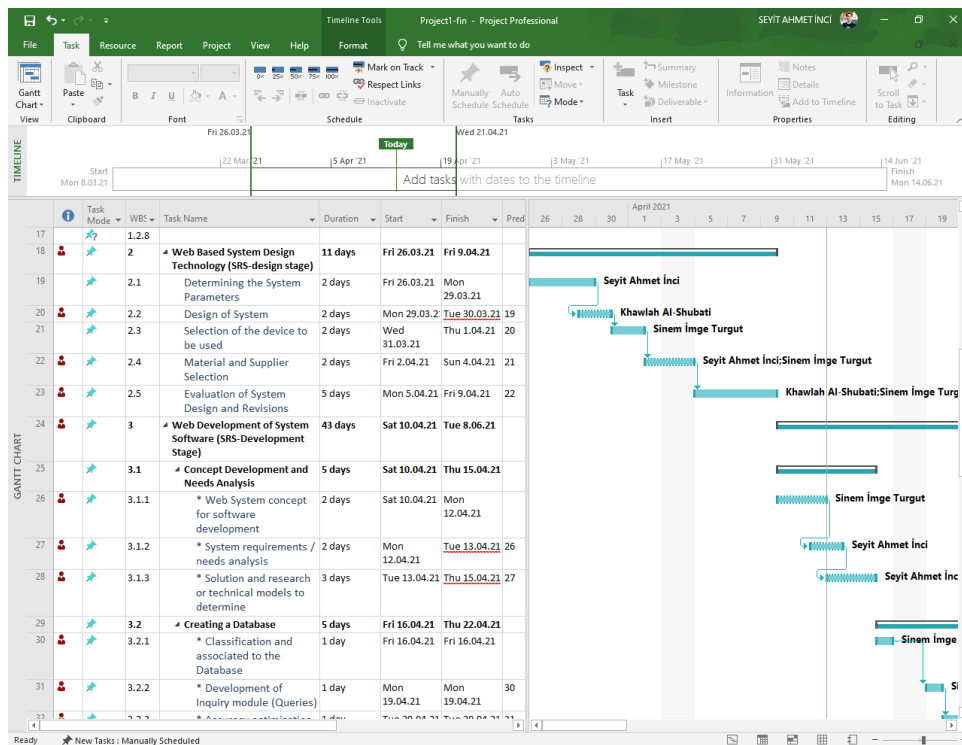
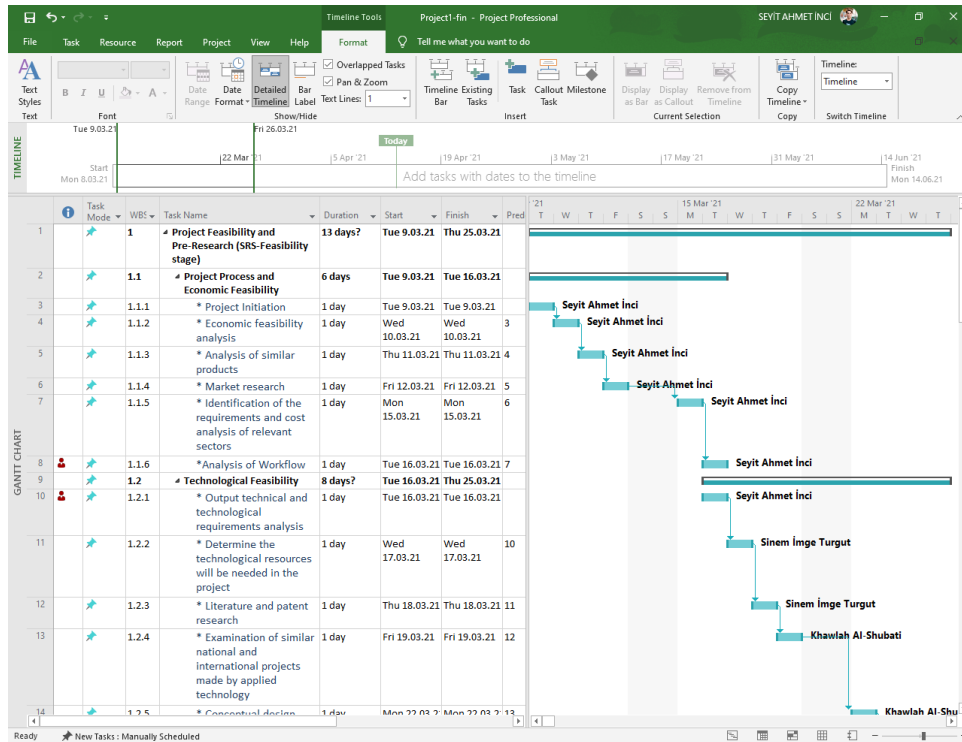
<b>Project Name :</b>				
Cost Item	2018-2019		TOTAL (TL)	TOTAL COST RATE OF CONTENTS (%)
	I	II		
Personnel	10,000	35,000	45.000	
Travel	2000	4000	6000	
Instrument / Equipment / Software / Publications	22.740	-	22.740	
Domestic Works Made By R & D and Testing Institutions	-	-		
International Works Made By R & D and Testing Institutions	-	-		
Domestic Services Procurement	-	-		
Overseas Service Procurement	-	-		
Material	-	-		
<b>TOTAL COST</b>	*Depends that time' s needs	*Depends that time' s needs		100

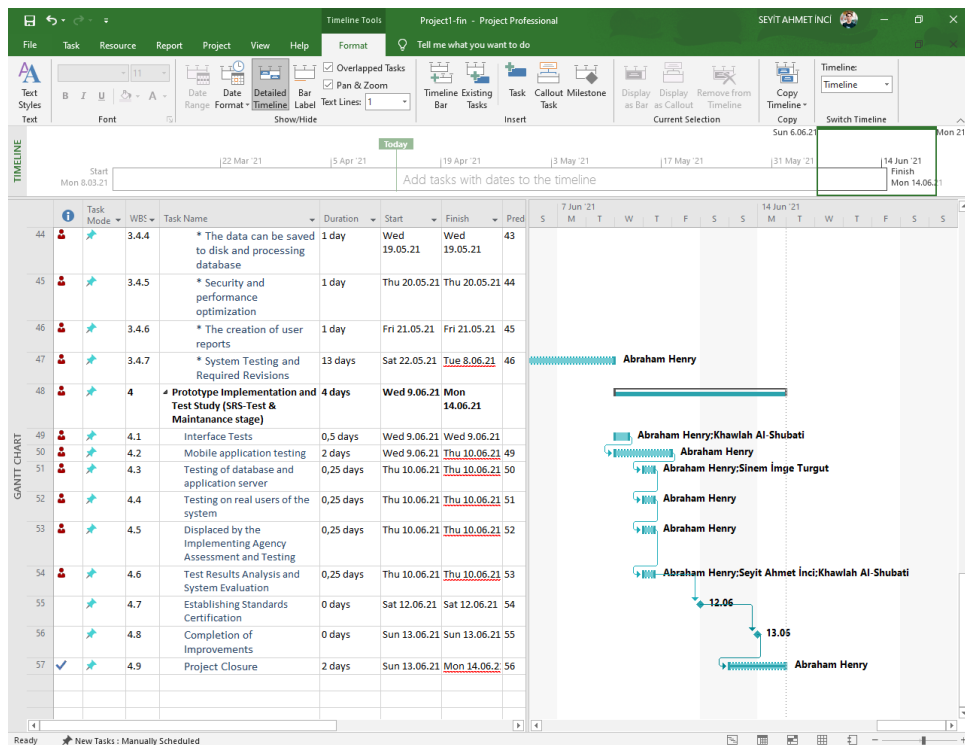
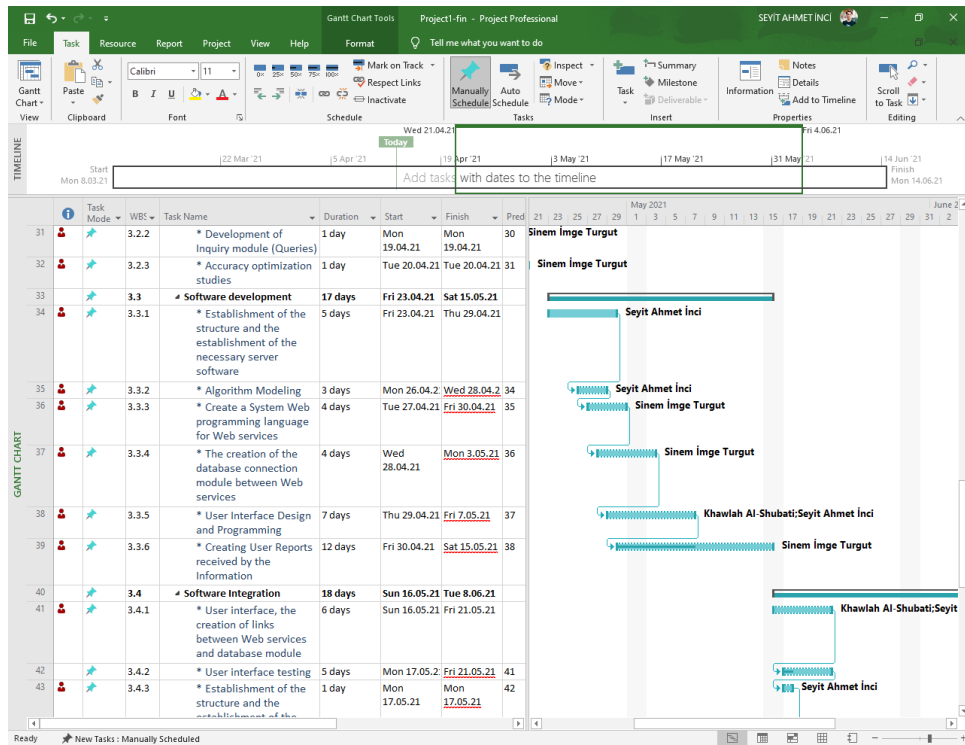
CUMULATIVE COST		73.740	100
IN THE PROJECT TOTAL MAN-MONTH		73.740	

# APPENDIX

## SCREENSHOTS FROM MICROSOFT PROJECT 2019

### Work Packages and Team members' time line sample period







### **Basic Cocomo Model (Organic type Mode) :**

$$\text{KLOC} = \text{FP} \times (\text{LOC} / 1000) = 2.50$$

$$\text{LOC} = \text{Language Factor} \times \text{FP} = \text{Java}(53) \times 47.17 = 2500.01$$

$$\text{FP} = \text{UFP} \times (0.65 + 0.01 \times \text{DI}) = 53 \times (0.65 + 0.01 \times 24) = 47.17$$

$$\text{Effort} = \text{person-month} = a \times (\text{KLOC})^b = 2.4 \times (2.50)^{1.05} = 6.28$$

$$\text{Duration in month} = c \times (\text{person-month})^d = 2.5 \times (6.28)^{0.38} = 5.02 \text{ months}$$

$$\# \text{ of people} = \text{Effort} / \text{Duration} = 6.28 / 5.02 = 1.25 \text{ person required}$$

Measurement Parameter	Simple	Weight	Average	Weight	Complex	Weight	Sum
1. Number of external inputs (EI)	1	3	2	4			$1 \times 3 + 2 \times 4 = 11$
2. Number of external outputs (EO)			2	5			10
3. Number of external inquiries (EQ)			2	4			8
4. Number of internal files (ILF)			1	10			10
5. Number of external interfaces (EIF)			2	7			14
SUM = UFP							53

	<b><u>Factor</u></b>	<b><u>Complexity</u></b>	<b><u>Complexity Value</u></b>
<b><u>1</u></b>	Data Communication	Moderate	3
<b><u>2</u></b>	Performance Criteria	Significant	4
<b><u>3</u></b>	Online Data Entry	Moderate	3
<b><u>4</u></b>	Online Updating	Moderate	3
<b><u>5</u></b>	Ease of Operation	Essential	5
<b><u>6</u></b>	Portability	Moderate	3
<b><u>7</u></b>	Maintainability	Moderate	3
		DI=?	24
		UFP=?	53
		FP=?	47.17

## Probability of successful completion rate:

Work Package Name	Expected Time [(o+4r+p)/6]	Optimistic Time	Realistic Time	Pessimistic Time	$\sigma$	$\sigma^2$ Variance	Probability of Completing Each Task	% Success Rate
Feasibility Studies and Pre-research	12,99666667	13,98	15	4	2,766678	7,65450593	0,254327797	P(z) = 0,5987 , <b>%59,87</b>
System Design	14,05	13,3	14	15	0,080278	0,00644452	-	P(z) = 0,5000 , <b>%50</b>
System Development	42,33333333	41	42	45	0,444444	0,19753086	-	P(z) = 0,4840 , <b>%48,40</b>
User Interface and Database Designing	15	14	15	16	0,111111	0,01234568	0	P(z) = 0,5000 , <b>%50</b>
Testing and maintenance stage	8,053333333	7,32	8	9	0,0784	0,00614656	-0,00677079	P(z) = 0,5000 , <b>%50</b>
Sum =						7,87697355		

### **Risk Analysis:**

<b><u>Risks</u></b>	<b><u>Probability</u></b>	<b><u>Effects</u></b>
Acts of God for example, extreme weather, leads to loss of resources, materials, premises etc	Low	<u>Delay on</u> <u>progrees</u>
Changes to requirements	High	catastrophic
Faults in reusable software components	Moderate	Catastrophic
The database used in the system cannot process as many transactions per second as expected	Moderate	Serious
Project conflicts not resolved in a timely manner.	Low	Serious
Lack of communication, causing lack of clarity and confusion	Moderate	Catastrophic
Inadequate customer testing	Moderate	Serious

### **CPM Analysis:**

Activity	Description	Processes	Time estimated (days)	ES	EF	LS	LF	Stack time
A	Feasibility studies and research	-	2 weeks	0	2	2	4	2
B	System design	A	2 weeks	2	4	6	8	4
C	System Development	A, B	6 weeks	4	10	4	10	0
D	User interface and database	C	3 weeks	4	7	7	10	3
E	Testing and maintenance stage.	D, C	1 week	10	11	11	12	1

ES	Act.	EF
LS	Dur.	LF

