SE 216 SOFTWARE PROJECT MANAGEMENT

WEBSITE SIMULATION FOR ORDERING FOOD

Software Development Plan

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1. OVERVIEW

1.1 Information

Websites are service networks. They can promote themselves and give visitors access to them, just like street shops or street signs. Mobile applications, on the other hand, are software designed to work on mobile devices such as smartphones, tablets and computers. This system we want to develop is a website where people can order the food and drink they want when they cannot cook or there is something they cannot do. They can find the restaurant information closest to their location and order the food they want without wasting time going to the restaurant while they are sitting at their homes or working at their workplaces.

The main purpose of wanting to develop this project is; to develop the tradesmen who had to close together with the pandemic we are fighting today, and to provide mutual gain as a link between the customer and the tradesman. However, while doing this, we want to give a privilege to small tradesmen by making commissions easier with the help of our sponsors and to introduce the project as a social responsibility activity.

In this document, everything needed to know about this project is explained in detail. High-level functionality, stakeholders, project staff distribution, software process model, schedule and effort, measurements, project risks and needs, software tools, GUI are explained clearly. This will be very helpful to the project manager if it is followed during development.

1.2 Objectives

- Enabling customers to easily order food online
- Enable customers to make extensive searches based on the type of the food
- > To keep small businesses running (may be by making them participate with small fee) because our main goal here was to develop small trades already. At the same time, we can contribute to this goal by getting less commissions from small tradesmen than large companies.
- ➤ Shows that the content of the food is safe with the content information we will receive from the workplaces we have contracted with (if the product in the content of the selected food is on the customer's allergy list, it warns the customer)
- To be known among the local food sector and work with advertisement companies
- For our regular customers, if they are satisfied with a local restaurant, they will have the option to buy the same meal or other dishes of the restaurant at the same time each day before ordering again. (Customers can cancel this delivery at any time.) In addition, they can get discounts as a result of these subscriptions.
- ➤ In addition, in order to increase the tendency to the site, campaigns such as giving gift orders once every 10-15 orders can be organized.

2. HIGH-LEVEL FUNCTIONALITY

GABT is both a mobile and web application that different users can enter and people can order food comfortably. Customers can save or change their addresses, food allergies and payment methods in their own accounts.

2.1 Requirements

2.1.1 Functional Requirements

- Customers should be able to find the food they want in the categories they choose. (e.g. fast food or home cooking)
- The system can have 3 types of users; It serves registered food restaurant owners (or vendors), web users and system administrators in the system
- Food and beverages should be enriched with visuals in order to facilitate the user decision making
- > Customers should be able to modify or cancel an order before completing their order
- ➤ When customers submit their order, they should be able to choose different payment methods (credit cards, cash...)
- Customers could check the box near ordering button and modify their order's delivery time and occurrence

2.1.2 Non-Functional Requirements

- The system should be available 24/7 (except for maintenance, the system should inform the customers in advance)
- The system should correct the allergic products that the customers enter. If they are allergic to a product that is not registered in the system, they must definitely report it
- The information of the customers should be kept confidential, so the personal information and addresses of the users registered in the system cannot be viewed by other users
- ➤ When a customer places an order, the progress screen should respond within 3 seconds to avoid keeping the customer waiting
- The system should be understandable using fonts and directives that are large enough to understand with instructions to guide the user in the right direction, so that it should at least appeal to people of all ages familiar with the technology
- As the target customers will change, the application of this system should use as little as 20mb

3. STAKEHOLDERS

There are four types of stakeholders in this project;

- Developers
- Sponsor
- Customer
- ➤ Restaurant Staff

3.1 Developers

The developers and the project manager are natural stakeholders of the project. The developer develops software for our project, makes it work and creates the source code.

3.2 Sponsor

Sponsorship is the act of supporting the project by providing services based on mutual gain principle. The sponsors of our project can also support us by advertising or investing. The following can be given as examples;

- ➤ Advertising Firms
- Companies

3.3 Customers

Customers will order their requested food via this project, they can also set specific times for their food to arrive so they won't waste time.

3.4 Restaurant Staff

Staff will be able to procure the desired food from restaurants and deliver it to the customer or prepare requests, and at the same time change their own menus and make discounts. Our aim focuses on small scale business so this will help them promote their restaurant merchandise. The following can be given as examples;

- > Chef
- ➤ Kitchen Worker
- Carrier
- Cleaning Staff

4. PROJECT STAFFING

In this project, we assigned six roles for our four team members.

4.1 Software Project Manager

Software project manager; It has many tasks such as establishing the teams to work on the project, ensuring the coordination between the teams, making time management (determining the "deadline"), performing performance control, and measuring the impact of the changes in the project. The person who will assume this role must be an individual who can take all responsibility for the successful completion of a project, is successful in human relations, and is prone to teamwork. (Buse ÖZEL)

4.2 Lead Designer

Lead designer; It designs according to the project requirements and changes the design according to the changing needs in the process from the idea stage to the meeting with the end user. The person to assume this role should be an individual who can understand design paradigms, have the ability to identify and explain system architecture, and troubleshoot design and implementation issues. (Asil ÖVÜNÇ)

4.3 Tester

Tester; To identify any problems that may occur in software programs, to investigate the causes of these problems and to develop test plans, to create a report summarizing the types of errors found in software programs and the steps taken to resolve these errors, to evaluate the risk of errors and to troubleshoot problems before defining a new software. It has many duties, such as cooperating. The person who will assume this role should be an individual who is well-versed in testing methodology and techniques, is curious and inquisitive, and has a solid analysis ability and workflow knowledge. (Gizem KILIÇ)

4.4 Documentation Specialist

Documentation specialist; It has duties such as storing project information by subject, transferring documents in file format to digital media, archiving and protecting project documents. The person who will assume this role should be an individual who can take responsibility and has a command of the project. (Buse ÖZEL)

4.5 Coder

Coder; writing the necessary code and unit tests for the project, documenting implementation details and changes. The person to assume this role should be an individual who can understand design documentation, have a desire to learn and understand system architecture and design, and have knowledge of the development environment. (Asil ÖVÜNÇ)

4.6 Tools Expert

Tools expert; selects, installs, updates and maintains the appropriate and necessary tools for the project. The person who will assume this role should be an individual who is patient with both users and software vendors and can react quickly to critical and stressful project problems. (Tezcan UYANIK)

5. SOFTWARE PROCESS MODEL

5.1 Necessary Needs from the Organizational Process

- Requirements must first be validated against higher level requirements or user needs
- > The selected model should describe the activities to be carried out during product development and the results to be produced
- ➤ It should allow early recognition of planning deviations and risks and reduce project risk by improving process management
- ➤ Intermediate results identified should be controllable at an early stage. Thus, uniform product contents will increase readability, clarity and verifiability
- Comprehensive and testable system requirements, the effectiveness of the applied system in rigorous acceptance testing (system validation) to ensure it meets the specified requirements
- ➤ It should provide concrete assistance on how to implement an activity and work steps, and clearly describe the events required to learn a business step

5.2 Unnecessary Needs from the Organizational Process

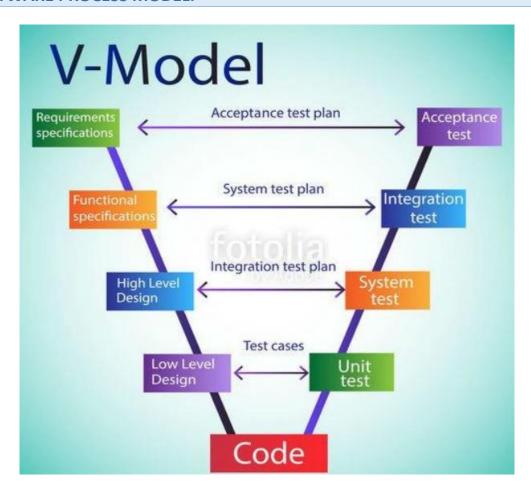
- > Organization and execution of the operation, maintenance, repair and termination of the system
- Source control and cost control

5.3 Software Process Description and Model

SOFTWARE PROCESS NAME: V-Model SOFTWARE PROCESS DESCRIPTION:

- ➤ It is a model in which the processes are carried out sequentially on the V shape. It is also known as a Verification and Validation model
- It is an extension of the Waterfall model and is based on correlating a test phase corresponding to each development phase. In other words, the most basic feature of the V-Model is "the testing of the product is planned in parallel with the corresponding development phase"
- The next stage can only begin after the previous stage has been completed
- Horizontal and vertical angles show the time or project completeness and abstract level
- While there are Verification stages on one side of the V shape and Validation stages on the other side, the coding stage is at the combination of both

SOFTWARE PROCESS MODEL:



This model we have chosen is easy to follow and use on the project management side. In addition, users of the V-Model participate in the development of the V-Model and the maintenance of the V-Model. Since testing activities such as planning and test design are performed before coding, it saves a lot of time in the project. In addition, due to the model, the errors are found at an early stage and the errors are prevented from moving to the next stage. We thought this model was more suitable for our project. Because at the same time, in the V-model, all the different queries taken during the system development and testing, and every weekly, daily change corresponds to the change control table. The V-Model provides precise support in the work steps and how the activity will be carried out, clearly defining the needs of events to complete a work step.

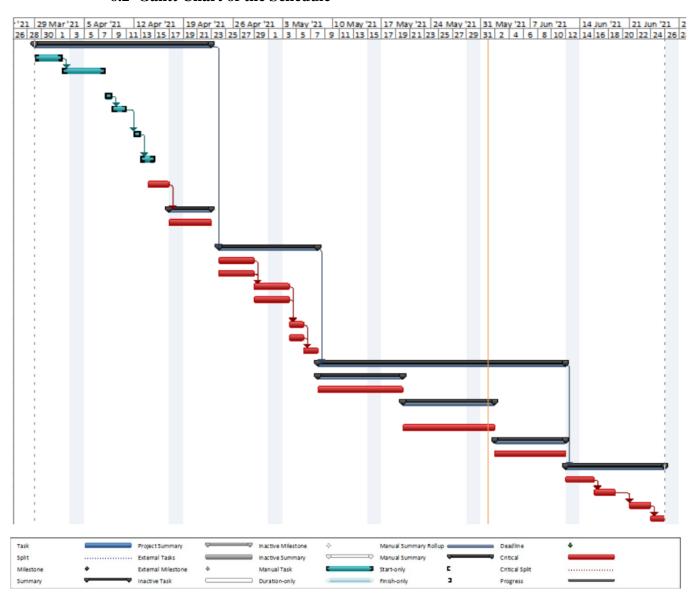
6. SCHEDULE AND EFFORT

In software project management, a schedule should consist of a list of terminal items for a project with planned start and end dates. Scheduling is the most critical part of the software development process. Each date should be reasonable, taking into account the delays. A well-prepared schedule will result in a product that is qualified and delivered on time.

6.1 Schedule of the Project

| D | 0 | Task Mode | Task Name | Duration | Start | Finish | Predecessors |
|----|---|--------------|----------------------------------------|----------|--------------|--------------|--------------|
| 1 | | A. | Planning & Preparing | 19 days | Mon 29.03.21 | Thu 22.04.21 | |
| 2 | | 7 | Deciding The Project | 4 days | Mon 29.03.21 | Thu 1.04.21 | |
| 3 | | A. | Research and Background Reading | 4 days | Fri 2.04.21 | Wed 7.04.21 | 2 |
| 4 | | 7P | Prepare Questions | 1 day | Thu 8.04.21 | Thu 8.04.21 | |
| 5 | | A | Arrange Meetings within the group | 2 days | Fri 9.04.21 | Sat 10.04.21 | 4 |
| 6 | | * | Conduct Meetings within the group | 1 day | Mon 12.04.21 | Mon 12.04.21 | 5 |
| 7 | | * | Arrange meetings with the customers | 2 days | Tue 13.04.21 | Wed 14.04.21 | 6 |
| 8 | | * | Define The Baseline Requirements | 3 days | Wed 14.04.21 | Fri 16.04.21 | |
| 9 | | A. | Define the Budget | 5 days | Sat 17.04.21 | Thu 22.04.21 | 8 |
| 10 | | A. | Work with the sponsors | 5 days | Sat 17.04.21 | Thu 22.04.21 | |
| 11 | | * | Design & Testing Plans | 11 days | Sat 24.04.21 | Fri 7.05.21 | 1 |
| 12 | | * | System Design | 4 days | Sat 24.04.21 | Wed 28.04.21 | |
| 13 | | * | System Testing Plans | 4 days | Sat 24.04.21 | Wed 28.04.21 | |
| 14 | | A. | Architecture Design | 3 days | Thu 29.04.21 | Mon 3.05.21 | 12;13 |
| 15 | | A. | Integration Testing Plans | 3 days | Thu 29.04.21 | Mon 3.05.21 | |
| 16 | | A. | Module Design | 2 days | Tue 4.05.21 | Wed 5.05.21 | 15;14 |
| 17 | | A | Unit Testing Plans | 2 days | Tue 4.05.21 | Wed 5.05.21 | |
| 18 | | A. | Graphical Design | 2 days | Thu 6.05.21 | Fri 7.05.21 | 16;17 |
| 19 | | A. | Coding | 26 days | Sat 8.05.21 | Fri 11.06.21 | 11 |
| 20 | | 7 | Database | 9 days | Sat 8.05.21 | Wed 19.05.21 | |
| 21 | | The same | MySQL | 9 days | Sat 8.05.21 | Wed 19.05.21 | |
| 22 | | 18 m | Mobile App Programming | 9 days | Thu 20.05.21 | Tue 1.06.21 | |
| 23 | | A. | Android Studio | 9 days | Thu 20.05.21 | Tue 1.06.21 | |
| 24 | | A | Web Programming | 8 days | Wed 2.06.21 | Fri 11.06.21 | |
| 25 | | * | Visual Studio Code | 8 days | Wed 2.06.21 | Fri 11.06.21 | |
| 26 | | 7º | Testing | 11 days | Sat 12.06.21 | Fri 25.06.21 | 19 |
| 27 | | No. | Unit Testing | 3 days | Sat 12.06.21 | Tue 15.06.21 | |
| 28 | | A. | Integration Testing | 3 days | Wed 16.06.21 | Fri 18.06.21 | 27 |
| 29 | | A. | System Testing | 3 days | Mon 21.06.21 | Wed 23.06.21 | 28 |
| 30 | | A. | Acceptance Testing | 2 days | Thu 24.06.21 | Fri 25.06.21 | 29 |

6.2 Gantt Chart of the Schedule



7. MEASUREMENTS

Questions to identify measurements:

- ➤ How many changes has been occurred?
- ➤ How much effort went to testing?
- ➤ How many defects has been found?
- ➤ How good is the product?
- ➤ How much effort did this project require?
- ➤ What percentage of the project parts delivered on time?
- ➤ How many team meetings occur according to schedule?

Identified measurements:

- > Number of changes during development
- > Total number of the test cases
- > Number of defects detected per test script executed
- > The number of defects found in each product inspected after inspection
- ➤ Number of source lines of code growth per week
- ➤ Average effort per Thousand Lines of code
- ➤ Identified user requirements
- Percentage of the successfully delivered project parts
- > Total cost of project resources
- Number of meetings held according to the work plan
- > Total number of hours spent each month preparing and conducting reviews
- Product growth over each week

Measurement storage and collection:

WHAT

- > changes made during development
- > changes made according to the number of defects detected in products inspected after inspection
 - > Changes to code lines
 - > changes made according to new decisions taken after the meetings held

WHEN

- ➤ Immediately after each inspection and control tests
- > At the end of the project

FORMAT

> Real number data

HOW

Entered into a pre-specified project spreadsheet by review leader

| Measurement Type | Description | Example Measurements |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Occurred Change | Determined the number of changes | Total change during development |
| Testing | Test held by testers | Total number of the test cases, Defects found per test script executed |
| Quality | Improved and completed user requirements | Product quality on the user side |
| Effort Done | Computed the required effort for the project | Average effort ,code growth per week, Project growth each week |
| Timing | Time/Efficiency calculations made for the delivered parts of the project | Percentage of the delivered project parts on time |
| Team Meetings | The number of interviews made by the people carrying out the project about the project progress in order to ensure the healthy progress of the project | Total number of hours spent for preparing conducting and performing reviews |
| Defects | Number of the examined defects are noted | Total number of defects |

8. PROJECT RISKS

8.1 Likelihood Risk List

| LIKELIHOOD | RISK |
|------------|-----------------------------------------------------------------------------------|
| RANK | DESCRIPTION |
| 1 | Tools :The team must identify the required and possible required tools for |
| | the system design and configuration management. On each progress stage |
| | tools may vary depending on the current requirements and customers. |
| 2 | Testing:Test of the product will be difficult as the testing hardware and |
| | environment are not acquired or installed yet. |
| 3 | Design Complexity: Most of the team members have small experience |
| | with the deployment platform and the software architecture. |
| 4 | Communication: The team may lack communication speed and |
| | skills. During the pandemic most of the work must be done apart from |
| | eachother and file-document transactions have to be cloud related. |
| 5 | Debugging: Defects may be difficult to detect and correct.Adjustments |
| | and observations are needed on the debugging program due to extensive |
| | work. Efficient debugging process may require time to settle. |
| 6 | Installation: Tool expert of the team must follow required tools plan |
| | cautiously and install required development tools depending on the |
| | current needs. Tool versions must be supported and licensed atleast for 5 |
| | years. |
| 7 | Acquisition of Hardware: Deployment, testing and communication |
| | hardware must be purchased and installed in order to progress project |
| | steps. |
| 8 | Training: The Team is expected to adapt and learn as fast as possible to |
| | new deployment platforms and development kits. |
| 9 | User(Customer) Requirements Volatility: Customer Requirements may |
| | vary due to running project concerns customer satisfaction and specific |
| | changes on the product. Adjustments must be made quickly and correctly. |
| | |

8.2 Impact Risk List

| IMPACT RANK | RISK DESCRIPTION |
|----------------|-----------------------------------------------------------------------------------|
| 1 | Debugging: Defects may be difficult to detect and correct.Adjustments |
| | and observations are needed on the debugging program due to extensive |
| | work.Efficient debugging process may require time to settle. |
| 2 | Design Complexity: Most of the team members have small experience |
| | with the deployment platform and the software architecture. |
| 3 | Tools:The team must identify the required and possible required tools for |
| | the system design and configuration management. On each progress stage |
| | tools may vary depending on the current requirements and customers. |
| 4 | Testing: Test of the product will be difficult as the testing hardware and |
| | environment are not acquired or installed yet. |
| 5 | Installation: Tool expert of the team must follow required tools plan |
| | cautiously and install required development tools depending on the |
| | current needs. Tool versions must be supported and licensed atleast for 5 |
| | years. |
| 6 | Communication: The team may lack communication speed and |
| | skills.During the pandemic most of the work must be done apart from |
| | eachother and file-document transactions have to be cloud related. |
| 7 | Training: The Team is expected to adapt and learn as fast as possible to |
| | new deployment platforms and development kits. |
| 8 | User(Customer) Requirements Volatility: Customer Requirements may |
| | vary due to running project concerns customer satisfaction and specific |
| | changes on the product. Adjustments must be made quickly and correctly. |
| 9 | Acquisition of Hardware: Deployment, testing and communication |
| | hardware must be purchased and installed in order to progress project |
| | steps. |

8.3 Combined Risk List

| LIKELIHOOD RANK | IMPACT RANK | COMBINED RANK | RISK DESCRIPTION |
|--------------------|----------------|---------------|----------------------------------------------------------|
| 1 | 4 | 5 | Tools:The team must identify the required and |
| | | | possible required tools for the system design and |
| | | | configuration management.On each progress stage |
| | | | tools may vary depending on the current |
| | | | requirements and customers. |
| 3 | 2 | 5 | Design Complexity: Most of the team members have |
| | | | small experience with the deployment platform and |
| | | | the software architecture. |
| 2 | 4 | 6 | Testing:Test of the product will be difficult as the |
| | | | testing hardware and environment are not acquired |
| | | | or installed yet. |
| 5 | 1 | 6 | Debugging: Defects may be difficult to detect and |
| | | | correct.Adjustments and observations are needed |
| | | | on the debugging program due to extensive |
| | | | work.Efficient debugging process may require time |
| | | | to settle. |
| 4 | 6 | 10 | Communication: The team may lack communication |
| | | | speed and skills. During the pandemic most of the |
| | | | work must be done apart from eachother and file- |
| | | | document transactions have to be cloud related. |
| 6 | 5 | 11 | Installation: Tool expert of the team must follow |
| | | | required tools plan cautiously and install required |
| | | | development tools depending on the current |
| | | | needs.Tool versions must be supported and licensed |
| | | | atleast for 5 years. |
| 8 | 7 | 15 | Training: The Team is expected to adapt and learn as |
| | | | fast as possible to new deployment platforms and |
| | | | development kits. |
| 7 | 9 | 16 | Acquisition of Hardware: Deployment, testing and |
| | | | communication hardware must be purchased and |
| | _ | | installed in order to progress project steps. |
| 9 | 8 | 17 | User(Customer) Requirements Volatility: Customer |
| | | | Requirements may vary due to running project |
| | | | concerns customer satisfaction and specific changes |
| | | | on the product.Adjustments must be made quickly |
| | | | and correctly. |

9. SOFTWARE TOOLS

| TASK # | PROJECT TASKS WHICH REQUIRE SOFTWARE TOOL SUPPORT |
|--------|---------------------------------------------------|
| 1 | Database software |
| 2 | Development tool for android |
| 3 | Web Development Tool |

9.1 Database Software

SOFTWARE TOOLS FOR TASK 1: Database software

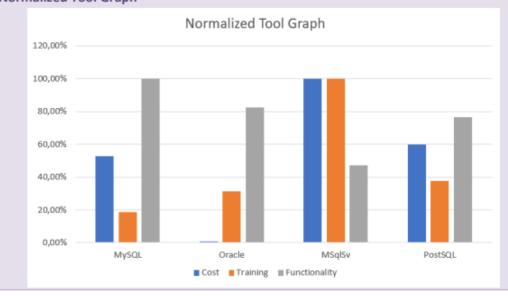
Tool Cost/Training/Functionality Data

| Tool | MySQL | Oracle | Microsoft SQL | PostgreSQL |
|---------------|--------|--------|---------------|------------|
| | | | Server | |
| Cost | \$2380 | \$43 | \$4500 | \$2700 |
| Training Days | 3 | 5 | 16 | 6 |
| Functionality | 85 | 70 | 40 | 65 |

Normalized Cost/Training/Functionality Data

| Tool | MySQL | Oracle | Microsoft SQL | PostgreSQL |
|---------------|-------|--------|---------------|------------|
| | | | Server | |
| Cost | 52.8 | 0.95 | 100.0 | 60.0 |
| Training Days | 18.75 | 31.25 | 100.0 | 37.5 |
| Functionality | 100.0 | 82.3 | 47.0 | 76.5 |

Normalized Tool Graph



We chose MySQL here because it supports multiple language connection operations, is small in size and performs at high speed. Also, MySQL has a very flexible and secure permissions and password system. With the table we made, we have determined that the cost of our project is average, the training day is low and its functionality is higher compared to other preferences.

9.2 Development Tool for Android

Eclipse

SOFTWARE TOOLS FOR TASK 2: Development tool for android Tool Cost/Training/Functionality Data Tool Android Visual Studio **Eclipse Xcode** Studio Cost \$1 \$1 \$179.4 \$299 Training Days 6 7 4 10 **Functionality** 30 80 60 20 Normalized Cost/Training/Functionality Data Android Tool **Eclipse** Visual Studio Xcode Studio Cost 0.3 0.3 60.0 100.0 40.0 **Training Days** 60.0 70.0 100.0 37.5 100.0 75.0 25.0 Functionality Normalized Tool Graph Normalized Tool Graph 120,0% 100,0% 80,0% 60,0% 40,0% 20,0% 0.0%

■ Cost ■ Training ■ Functionality

Xcode

AndroidSt

We chose Android Studio here because the system can be integrated into all devices regardless of the model and can be used on all websites thanks to its flash feature. Also, Android Studio is practical and free to use. With the table we made, we determined that the cost of our project is low, the training day is average, and its functionality is higher compared to other preferences.

9.3 Web Development Tool

| Tool Cost/Training/Functionality Data | | | | |
|------------------------------------------------|----------------------------------------|-------------------------|-------|-----------------------|
| Tool | Adobe | Slick Edit | Emacs | Visual Studio |
| | Dreamweaver | | | Code |
| Cost | \$239 | \$99 | \$1 | \$1 |
| Fraining Days | 20 | 30 | 8 | 15 |
| Functionality | 30 | 55 | 65 | 80 |
| ormalized Cost/1 | Training/Functiona Adobe Dreamweaver | lity Data Slick Edit | Emacs | Visual Studio Code |
| Cost | 100 | 41.50 | 0.40 | 0.40 |
| Fraining Days | 66 | 100.0 | 26.50 | 50 |
| | | 68.75 | 81.25 | 100 |
| Functionality ormalized Tool G | 37.5 Graph | 06.73 | 61.23 | 100 |
| ormalized Tool G | Graph | nalized Tool Gr | | 100 |
| | Graph | | | 100 |
| ormalized Tool G | Graph | | | |
| 120,00% — | Graph | | | |
| 120,00% — 100,00% — 60,00% — 40,00% — | Graph | | | |
| 120,00% — 100,00% — 80,00% — 60,00% — | Graph | | | |
| 120,00% — 100,00% — 60,00% — 40,00% — | Norm | | | VSC |

We chose Visual Studio Code here because VSC combines the simplicity of a source code editor with powerful developer tools and it's faster compared to the alternative editors and can be extended with plugins to our needs. It has decent training time with high functionality and it's also free to use.

10. PROJECT NEEDS

10.1 Software Needs

| # | SOFTWARE NEEDS | DESCRIPTION |
|---|-----------------------------|-------------------------------------------------------------------------|
| | MySQL Workbench | Workbench is required to use query language and server. |
| | Android Studio | Project requires mobile application to run on mobile |
| | | platform. Android studio is needed. |
| | Visual Studio Code | Visual Studio Code works with powerful developer tools |
| | | and faster compared to the other editors. Useful for both |
| | | front-end and back-end coding. |
| | Oracle PL/SQL For | SQL Workbench lacks object oriented programming and |
| | Developers | environment. Oracle PL/SQL environment combines the |
| | | query language with its own object oriented procedures. |
| | | Gives developers the opportunity for connection and |
| | | consistency. |
| | Licensed and | Preferably Win 10 / Linux/ MacOS (for MacBook) Vary |
| | Supported Operating Systems | from software efficiency on operating system. |
| | Discord & Microsoft | Pandemic era cuts the physical communication. The team |
| | Teams | has to communicate, publish and broadcast for the |
| | | documents and project materials. |
| | Oracle Cloud Storage | Documents, lists, schedules, codes, programs must be |
| | | stored securely and can be reached by the team. |
| | Team Viewer | Remote Service may be required during the project. |

10.2 Hardware Needs

| # | HARDWARE NEEDS | DESCRIPTION |
|---|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Intel i5 or ryzen5 processor | Preferably 8th gen or newer Intel processor. Intel processors known to be with strong single core efficiency. Latest Ryzen is relatively same with stronger multi core threading. It depends on price / efficiency after this point.(R5 3600 and i5 10400) |
| | 16 GB ram | 16 GB ram is enough for a basic development environment. |
| | Full HD Resolution Monitor 1920x1080p | Resolution is important for both developing and general work process. The lower resolution monitor gets the quality decreases, higher it gets the performance decreases and cost increases.1080p is decent for the requirements. |
| | At least 1 TB Sata 3 SSD | Storage unit is important. Due to slow reading/writing speed of Hard disks, SSD's are preferred for the development environment. |
| | 1080p Webcam For Live Meetings | Visual Communication is important during the pandemic period. Regular 1080p webcam is more than enough for each member of the group. |
| | Regular Microphone | Sound quality isn't the most important thing. Decent microphones are required to communicate between each other. |
| | Regular Mouse & Keyboard | Mouse and keyboard for basic functions of a computer. |
| | NVidia GeForce GTX 1060 or AMD RX 580 Graphics Card | A high end Graphics Card isn't really needed because the project doesn't need graphic render and highly GPU based processes. |
| | 600W 80 Plus Power Supply Unit | 80 + certificate is a must to ensure electricity is not wasted and computer is protected with high end components.500 or 600w PSU is sufficient. |
| | Regular Motherboard Compatible with CPU | Entry level low-end motherboard is required for computer to function depending on the CPU brand and socket type. |

10.3 Support Needs

| # | SUPPORT NEEDS | DESCRIPTION |
|---|---------------------|--------------------------------------------------------------------------|
| | Debugger | Since no one has experience about program debugging, |
| | | debugger from outside is required |
| | Hardware Technician | During the pandemic, most of the work must be done at |
| | | home. Sometimes hardware components fail and |
| | | malfunctions appear. They need to be fixed at home. It's |
| | | low possibility and not needed to hire technician |
| | | permanently. Temporary assist is sufficient. |
| | Web Designer | Web design is important and need unique skills and |
| | | imagination. May need to hire a designer for the project. |
| | Interpreter | Target group contains non Turkish minorities and |
| | | foreigners. To serve at least in 3 different languages we |
| | | are going to need translators. (Ex: Arabic, Eng.) |

11. GRAPHICAL USER INTERFACES

11.1 Web Design



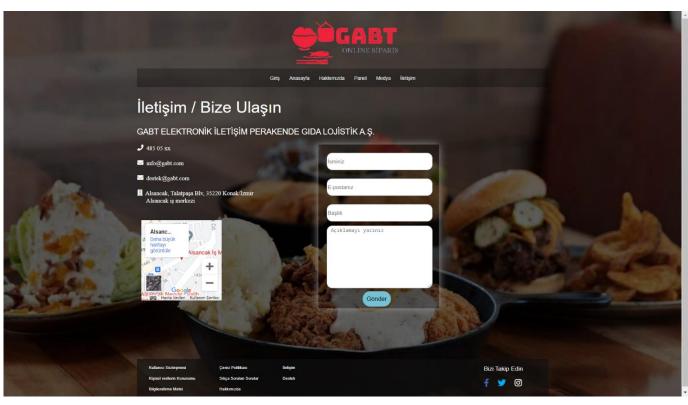










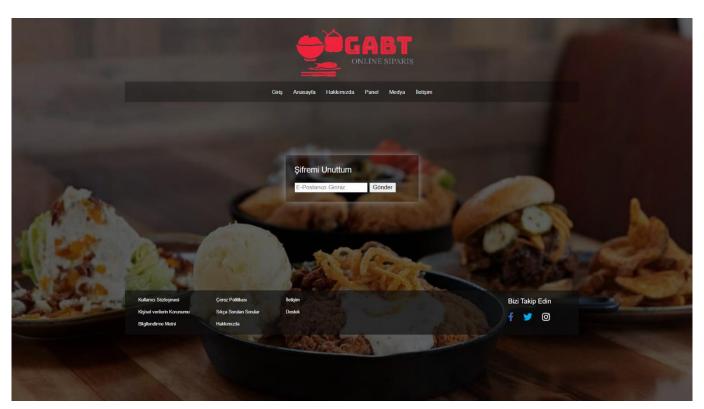


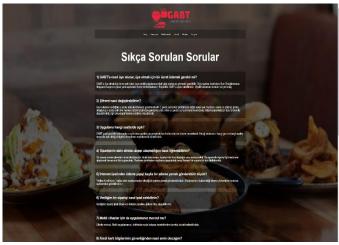


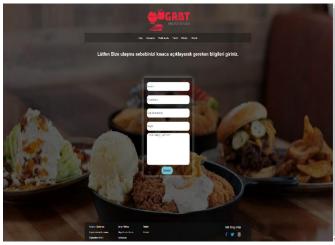












11.2 Mobil Application Design





12. CONCLUSION

To summarize, our main objective was to focus on the small businesses and increase their income during the global pandemic. Most of these restaurants sell their own products so, it would have been also helpful for the customers who has no time to cook for themselves a healthy meal or work overtime. During lockdown people's nutrition intake differs from one to another as people cope up differently for difficult situations. Thus their space will be limited, which will turn their protein and carbohydrate to fat unless they exercise regularly. So when we put forward this project we also thought of their diet and a system that is thoughtful of their allergies.

The product of this work, GABT, is styled to be user friendly to minimize the time to learn using it since we plan to serve people of nearly every age.

Overall this achievement have yet to be achieved, still we made the site using the tools we have mentioned before. By all means if we had more experience and time our boundaries would have been different. This development will be the base of our goal.

In this document, everything needed to know about this project is explained in detail. This will be very helpful to the project manager if it is followed during development.