**Name : Gad Ahmed Mahmoud  
school : We Suez**

**Task : Task2 U25**

**Introduction:**

In our current time of rapid technological development, **Dern-Support** has submitted an application to **Soume Computing** A request to create a website to display its services in providing technical support and repairing computer systems to all customers so that the website serves the **company’s expansions**, and here I am, I will provide the best solutions that serve the company’s **requirements**.

**1 - Overview of the Business Context :**

The company currently provides technical support and computer repair services. The customer has two options in this case **(on-site support, in which case the customer must deliver the computer to the nearest service office)** or **(or submit a request and have one of the employees take the computer from his home)**.

**1.1 - Challenges that may face the company**

* **Managing increased demands**: It will be difficult to manage increased demands on the site and it will be difficult to manage the demands efficiently.
* **Coordinating field teams**: It will be a challenge to establish offices in all locations.
* **Scheduling technicians**: It will be difficult to manage technicians and send them to customers.
* **Organizing customer data**: It will be difficult to organize all customer information.
* **Ease and speed of the site**: The site must be easy and smooth for the customer and provide its services in the best possible way
* **Customer service**: A fast-responding customer service must be provided.

**1.2 - Growth opportunities for the company**

In order to **increase** the growth **opportunities**, I can create an organized dashboard with statistics, orders, and a complete record of all operations so that the **marketing** **team** can access the dashboard to **expand** the customer base. It is also **possible** to **provide** new services.

**1.3 - Proposed Solution**

It is to improve and **organize work** in a company so that we can help them manage operations better because the company is currently facing difficulty in following up on orders and **organizing** the **schedule** for technicians.

* **Features that serve customers**: Create an account and register in it. It would be good to create an account and create account pages to write the address, name, payment information, etc.
* **Request support**: The customer can request technical support through the website easily
* **Track the status of devices**: After repairing the devices, customers are contacted once to ensure the status of the devices and customer satisfaction. This will increase customer satisfaction
* **Features that serve the company**: It would be good to create a dashboard to manage requests, schedule technicians, and track devices

**1.4 - Functional and Non-Functional Requirements**

**1.4.1 - Functional Requirements:**

* **Create an account and log in:** The customer will be able to create an account and log in easily**.**
* **Create a small community to communicate on the site:** Users will be able to create posts and answer posts related to the world of technology and also to create a poll.
* **Create a page to communicate with customer service:** Customers will be able to enter information whether they have a problem or communicate with customer service easily.
* **Dashboard**: A dashboard will be created with all the information that the company may need

**1.4.2 - Non-Functional Requirements:**

* **Security**: The site will be highly secure. Passwords will be hashed and the JWT will be secured.
* **The site will be fast**: The site will use powerful and fast tools such as React, Node.js and Express.

**2 - Key Performance Indicators (KPIs):**

* **Work completion time**: This should be determined as a measure for future development. The faster each request is completed or repaired, the more satisfied customers will be, which will increase the number of customers. This is what is required.
* **User satisfaction**: After repairing the device, the customer must be contacted and inquired about the condition of the device if it has encountered other problems and the extent of customer satisfaction.
* **Speed ​​of completing errors and recurring problems**: The more recurring problems in the devices, the easier it is to identify them and the faster those problems are solved.
* **Number of requests completed per day**: The average number of requests completed per day should be seen.
* **Speed ​​of response**: When the user requests that his device be taken from home or that technicians take his device, it must be known how long it will take for our employees to arrive.

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| Risks | how to mitigate them |
| Potential loopholes | Think of more than one scenario while doing anything. Think of more than one case so that the site is protected for all possible scenarios. |
| Dashboard Complexities | To reduce the complexity of the dashboard, we will search for other dashboards and imitate them and study more than one dashboard to reach the easiest and best dashboard. |
| Slow front-end of the site | To try to reduce this problem, React will be used, which will transfer the site to another side that is better than making it with pure JavaScript, CSS, and HTML, and also using routing in React. |
| Difficulty using the site | The front-end will be designed to serve the least computer-using human categories, and at the same time in a beautiful and simple way. |

**3 - Design Documentation:**

**3.1 - Functional and Non-Functional Requirements Specifications:**

**3.1.1 - Functional Requirements:**

* **Customers must be able to register an account**: Customers must be able to create personal accounts and access them at any time
* **Submit technical support requests**: Customers must be able to submit a request for technical support to come and pick up their device
* **Track the status of requests:** whether during the repair of their device or at least once after the repair to ensure that the device is working
* **Manage requests and obtain all information from the dashboard**: The dashboard must have all information and a complete record of all requests that have been delivered and those during the repair
* **Send notifications:** Send notifications to customers via email Customers must receive emails to follow up on the status of the device before and after
* **Access to customer service at all times:** Customers must be able to access customer service quickly and also be able to send emails

**3.1.2 - Non-Functional:**

* **Performance:** Pages should load as quickly as possible and should be able to handle a large number of users without having a significant impact on the servers.
* **Security:** Customers should be protected (e.g., customer passwords should be encrypted before being registered in the database).
* **Scalability:** A scalable database should be designed to support a large number of users as the company grows.
* **Ease of use:** The site should be usable by all segments of society.
* **Maintainability:** The code should be organized and clear for anyone who comes after it to fix it.

**4 - Feedback:**

* **Adding emojis to each wide title**: Adding an emoji to each title will give a better and distinctive aesthetic appearance to the site.
* **Adding two buttons for the nearest office and the main office that connects to Google Map**: Adding these two buttons makes accessing office locations easier.
* **Adding the certificates part in About Us**: Adding the certificates part will make the customer more secure

**All the feedbacks the engineer told me about have been done**

**5 - A full explanation of the site and how it works:**The site starts with a home page with a simple and easy nav bar and a home page with a nice picture on the right and calm. The home page is characterized at first glance by being simple and comfortable for the eye. There are some nice emojis and there are nice and motivational words. There are two buttons below the Get Started button, both of which take you to Google Maps, but one of them shows you the nearest office to you and the other shows you the main office location. As for the Get Started button, it will send you to the service page only if you are logged in. If you are not logged in, you will be transferred to the login page. As for the other page, which is the About Us page, at first glance it is characterized by a component with the word About Us, which is nice, and there are some emojis. Below it is a simple explanation of the idea of ​​the site. There is a nice and comfortable computer picture. Below it is a component with squares with motivational words that make the user feel reassured about the site. It also has some animation. Nice and it also has a comfortable image for the eye. As for the certificates section, it has three certificates. We move to the service page. There is a group of anbots and there are nice emojis. On that page, a request is sent to the server to be displayed on the dashboard. The request is sent only if the user is logged in. Validation is done once in the front end and once in the back end and is stored in the database. We move to the contact page, which is also a beautiful and comfortable page for the eye. We dealt with email.js, which is an easy library. The email is sent to my personal email, and when sending, it appears that the email has been sent. As for the sign-up and login pages, they are two pages with strong validation on the front end and on the server because the password is encrypted. When sending, the cookie is saved in it, the button, the role, the username, and the email. The server also enjoys strong security. As for the dashboard page, it has Very easy and practical. It has a box to display requests, from which you can choose to reject the request, complete it, or display more information. As for the users’ page, it displays all users and we can delete them. Both pages are characterized by ease and practicality, and a search box.

**5 - How to run the website:**

1. **cd DernSupport\code\client\ && npm i && npm run dev**
2. **cd DernSupport\code\server\ && npm i && npm start 🡪 In another window**