**Chapter 1**

**1.Introduction:**

Maintenance services are essential for maintaining equipment and infrastructure in good working condition. They include preventive maintenance, such as scheduled inspections and adjustments, and predictive maintenance, which uses data and technology to predict when maintenance is needed based on equipment condition (What Is a Maintenance Service?, n.d.).

We chose this project because it saves time and money, and it is also possible to verify the security and safety of the home, as well as the home’s guarantees, and it prevents problems from worsening and becoming major, and it is also possible to increase or enhance the value of the home when everything is repaired and there are no problems with it. It makes the individual more comfortable and work faster when using some tools.

**1.1 Overview of Project case / Business cas**

A home maintenance services website is a digital platform that offers various home maintenance and renovation services, facilitating the process of finding professional providers in a specific area. Users can search for services like plumbing, electrical work, carpentry, and cleaning, and communicate directly with providers. This website contributes to maintaining home quality and resident comfort” Jones, Andrew, Desleigh De Jonge, and Rhonda Phillips. "The role of home maintenance and modification services in achieving health, community care and housing outcomes in later life." (2008).

The idea behind this project is to simplify the process of connecting customers with home maintenance services quickly, eliminating the need for extensive searches. We chose this concept due to the urgent market demand for maintenance services, with the aim of enhancing customer satisfaction and providing a reliable and efficient platform for identifying and dealing with service providers in the field of home maintenance.

Our website is designed to meet different needs, one of which includes plumbing repairs of all kinds. In addition, we specialize in installing and maintaining air conditioning units, handling electrical faults of a diverse nature, and providing comprehensive general cleaning services.

Moreover, our platform features an administrative department charged with the continuous development of the site and providing technical support to the repairmen and workers carrying out their duties. We offer our services to all demographics and businesses, and welcome annual contracts to immediately address any maintenance emergencies that may arise. Furthermore, customers have the option to enter into spot repair contracts for their residences, ensuring quick solutions to their home maintenance needs.

Our website offers quick communication between customers and home maintenance services, with information for each service and a section for customer satisfaction measurement. We prioritize customer satisfaction and offer competitive prices, ensuring value for money. Our transparent pricing model caters to different budgets while maintaining high quality standards. This approach fosters trust and loyalty, ensuring positive experiences.

**1.2 Preliminary Investigation:**

Building a new network or upgrading it requires planning and technical efficiency for strong communication and communication in connected devices in the modern era of technology, which is important to maintain for a long time to provide all the foundations and standards of efficiency and quality through managing and following up on the continuous maintenance of the home, developing a plan to follow up on systems, how to conduct Home maintenance, schedule, financial planning, purchasing necessary equipment, and the method of designing, installing, securing and performing the network have an effective role in improving the home maintenance service.

Problems the organization or client face and their consequences:

1. Poor quality: Whatever it is, such as companies or professional workers, the work is not perfected, and this in turn leads to the problem being repeated or exacerbated.
2. Weak communication between the organization or the client: This leads to delays in maintenance, the unavailability of the necessary information or equipment, or the inability to meet all the client’s needs.
3. Problems in scheduling: Difficulty in determining dates and times or being late for work and choosing an organization that is committed to the credibility of the work.
4. Lack of confidence: not feeling safe when entering the home and dealing with personal property or unprofessional behavior.

**Solve the problems:**

1. Implement strict quality control procedures to ensure that work meets specified standards.

- Providing regular training and development opportunities for employees to enhance their skills and experience.

- Encouraging a culture of continuous improvement and feedback where employees are empowered to suggest and implement improvements in processes and procedures.

2. Establish clear communication channels between the organization and customers, such as specific contact points or communication platforms.

- Regularly update clients on the progress of their projects and address any concerns or queries promptly.

- Providing training to employees on effective communication techniques and the importance of maintaining good relationships with customers.

3. Implement scheduling software or tools to help manage appointments and deadlines efficiently.

- Allocate sufficient time for each task or appointment to avoid overbooking and reduce delays.

- Clearly communicate scheduling policies and expectations to both employees and customers to ensure mutual understanding and agreement.

4. Conduct comprehensive background checks and screenings of employees to ensure trustworthiness and professional competence.

- Providing employees with appropriate training on privacy, security, and professionalism when interacting with customers.

- Establishing protocols and guidelines for handling personal property and maintaining confidentiality to reassure customers and build trust.

**1.3 Project Scope:**

Home maintenance service has a great impact on people from many aspects. In providing people with peace of mind, as they can rely on qualified specialists to carry out maintenance and repairs in their homes. Thanks to this service, people do not need to worry about repairing faults or dealing with installations in their homes and contribute to savings

People's time and effort. Instead of spending hours searching for solutions to problems, this allows them to direct their focus and efforts into other important matters in their lives to improve the living environment and make the home safer and more comfortable.

**Home maintenance service provides opportunities for employees and students to benefit as:**

1.Flexible job opportunities: Employees and students can work in their spare time according to their appropriate schedule. and make extra income by offering home maintenance services in their spare time

2. Skills Development: Staff and students can develop new skills in areas such as electricity, plumbing, upholstery, paint, furniture installation, cleaning, and others. They can use these skills in their personal or professional future.

3. Expanding the social network: By providing home maintenance services, employees and students can connect with new customers and build a strong social and professional network. Some existing customers may be recommended for their services to others, resulting in increased job opportunities.

4. Save time and effort: When employees use home maintenance service, they save the time and effort needed to perform the necessary repairs and maintenance in their homes. They can simply contact a maintenance company and identify the issue, and then skilled technicians are sent to deal with it.

5. Professionalism and quality: Home maintenance services usually provide professional and qualified technicians in various fields such as plumbing, electricity, air conditioning, carpentry, etc. Thus, the quality of the work is ensured and the problems are properly resolved.

6. Safety and security: Instead of trying to fix problems themselves, employees can rely on professional maintenance technicians to deal with electrical breakdowns or other serious work at home.

**Duration:**

It is difficult to determine exactly when the home maintenance service project will be expanded and moved to the final stages, as this is affected by several factors. Among these factors are the size of the project, the scope of services provided, the response by customers, and the demand for service. In addition, the organisation, planning and resources available may affect the continuity and development of the project.

It is important that the project is well planned and the sub-stages and tasks required to be accomplished are identified. Project management methodologies can be used to help estimate the expected duration of each phase and identify any factors that may cause development delays.

Finally, the individual circumstances of the project must be assessed and the available data analysed to predict the expected duration of the project’s transition to the final stages.

**Describing the features of the application:**

The system can provide customers with a list of features they can choose to register their complaints, provide suggestions and feedback, use the Lost Feature, and check the status of their complaints in a home maintenance service. These features are intended to optimise the customer experience and provide effective channels of communication and deal with any issues they may encounter.

Through the list of available features, customers can choose the services that suit their personal needs and requirements. For example, they can use the Complaints Enrolment feature to report any issues they have with the service or products provided, to ensure that they are resolved quickly and effectively. In addition, customers can use the feature of providing suggestions and feedback to contribute to improving service quality and product development.

**A home maintenance service typically targets a variety of users, including:**

1. Homeowners: This category includes people who own homes and require periodic maintenance or repairs. They may have problems with plumbing, electricity, air conditioning, heating, ventilation, cracking, construction, restoration, cleaning, etc.

2. Tenants: This category includes people who live in rented homes and need repairs or maintenance in the housing unit they rent. Typical problems can include waterproofing, electrical breakdowns, defective doors and windows, home appliance problems, etc.

3. Companies and organisations: Companies and organisations may need home maintenance services to keep their property and buildings in good condition. These services can include the maintenance of electrical appliances and systems

4. Technicians and Craftsmen: Technicians and craftsmen can work on a home maintenance project and provide their specialised services in areas such as plumbing, electricity, carpentry, paints and others. This project is an opportunity for them to generate additional income and expand their customer base.

**Some of the functionality of the application include:**

1. qualified technicians: The app allows users to find qualified and trusted technicians and craftsmen in fields as diverse as electricity, plumbing, air conditioning and heating, carpentry and others. Users can search for technicians based on previous location, assessments, and comments.

2. Schedule appointments: Users can book appointments with their favourite technicians through the app. This allows for business organisation and avoids long waiting.

3. Submit service requests: Users can apply for the required home maintenance services. They can determine the type of service and the problem they are facing, and the request will be routed to the appropriate technicians.

4. Assessments and reviews: The app allows users to provide reviews and reviews of the technicians and services provided

5. Follow-up of requests: Users can follow the status of their requests submitted through the application. They will be updated on booking confirmation, technical appointment, expected arrival time, cost estimate, and other details related to the order.

6. Secure Payment: Users can pay for the service via the app using secure and reliable payment options. They can track the history of payments, invoices, and related financial details.

7. Technical support: The application provides a technical support service for users to answer their inquiries or solve any technical problems they may encounter while using the application.

8. Alerts and Reminders: The app sends users alerts and reminders to remind users of booking dates, technical arrival, and any other updates related to orders.

**Project goals:**

1. Providing comfort for people in obtaining public services inside the home.
2. Help save time and effort in searching for specialized technicians.
3. It works to enhance the safety and quality of household chores and provide appropriate and high-quality services to customers.

**strength point:**

1. Increase in demand:

People use home maintenance services heavily for routine home repairs and upkeep, making it one of the most in-demand industries.

2. Diversity of services:

One of the biggest sectors in the world, construction offers a fantastic chance to offer home maintenance services.

3. Increase in profit:

Because of the growing market competition and high demand, home maintenance services have a huge potential for high earnings.

4.You can start the project at a limited cost: You can begin working on your idea for the least amount of money possible when compared to other major sectors.

**1.4 Feasibility Study:**

**Technical requirements:**

Software (table 1)

|  |  |  |
| --- | --- | --- |
| NM | Software name | Application |
| 1 | Visual Studio | Figure 1:Visual Studio |
| 2 | Microsoft Word | Figure 2: Microsoft Word |
| 3 | Project liber | Figure 3: Project libre |
| 4 | Canva | Figure 4: Canva |
| 5 | Windows | Figure 5: windows |
| 6 | Android | صورة تحتوي على قصاصة فنية, التصميم, توضيح  تم إنشاء الوصف تلقائياً بثقة متوسطة  Figure 6: Android |
| 7 | ios | Collection of Logo Apple Ios PNG. | PlusPNG  Figure 7: iOS |
| 8 | WhatsApp | Figure 8: whatsApp |

**Technical requirements:**

Hardware (table 2)

|  |  |  |
| --- | --- | --- |
| NM | Software name | Item’s Picture |
| 1 | Laptop | Figure 1: Laptop |
| 2 | phone | Figure 2: phone |
| 3 | USB | Figure 3: USP |
| 4 | print | Figure 4: print |
| 5 | pc | してお 2021 Newest Dell Inspiron 3880 Desktop Computer， 10th Intel Quad ...  Figure 5: pc |
| 6 | Keyboard | Top 5 Best Sellers Computer Keyboards  Figure 6: keyboard |
| 7 | Mouse | Figure 7: B100 Wired Optical USB MouseMouse |

**Economic feasibility study:**

**Hardware** (Table 3)

|  |  |  |  |
| --- | --- | --- | --- |
| NM | Software name | Item’s Picture | Price |
| 1 | Laptop | Figure 1: Laptop | 236 OMR |
| 2 | phone | Figure 2: phone | 400 OMR |
| 3 | USB | Figure 3: USP | 3 OMR |
| 4 | print | Figure 4: print | 270 OMR |
| 5 | pc | してお 2021 Newest Dell Inspiron 3880 Desktop Computer， 10th Intel Quad ...  Figure 5: pc | 330 OMR |
| 6 | Keyboard | Top 5 Best Sellers Computer Keyboards  Figure 6: keyboard | 15 OMR |
| 7 | Mouse | Figure 7: B100 Wired Optical USB MouseMouse | 5 OMR |

**Economic feasibility study:**

Software (table 4)

|  |  |  |  |
| --- | --- | --- | --- |
| NM | Software name | Application | Price |
| 1 | Visual Studio | Figure 1:Visual Studio | Free |
| 2 | Microsoft Word | Figure 2: Microsoft Word | Free |
| 3 | Project liber | Figure 3: Project libre | Free |
| 4 | Canva | Figure 4: Canva | Free |
| 5 | Windows | Figure 5: windows | Free |
| 6 | Android | صورة تحتوي على قصاصة فنية, التصميم, توضيح  تم إنشاء الوصف تلقائياً بثقة متوسطة  Figure 6: Android | Free |
| 7 | ios | Collection of Logo Apple Ios PNG. | PlusPNG  Figure 7: iOS | Free |
| 8 | WhatsApp | Figure 8: WhatsApp | Free |

In designing a home maintenance service, it is essential to determine the needs and expectations of customers. The focus should be on creating a simple and clear website interface, with an emphasis on ease of use and user experience. The content must be organized logically and the service details must be provided clearly and comprehensively. You should pay attention to small details such as colors, fonts, and images to make the website attractive and user-friendly for visitors.

**strength point:**

1. Accurately identify customer needs to meet their expectations.
2. Create a simple and clear website interface for ease of use.
3. Organize content logically and provide service details comprehensively.
4. Pay attention to small details such as colors, fonts, and images to make the site attractive and easy to use for visitors.

**Weaknesses point:**

1. Not fully meeting customer expectations due to not understanding them accurately.
2. The complexity of the website interface and the difficulty of navigating it.
3. Not providing sufficient information about the services provided.
4. Lack of attention to visual and design details that may affect the site’s attractiveness to customers.