

IT-489

Dr. Narock

Marymount University

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### **Project Description**

The project proposes an app that will boost customer loyalty in a car washing business by simplifying the hustle and bustle they go through when seeking a car wash. Through the smooth service, the business is going to retain and increase its client base. Through the app, the customers will be able schedule appointments, place order for services while the business will be able to create a customer loyalty base and develop a customer feedback system where the customers can raise issues like complains, comments on the services and suggestions on how to improve or the kinds of services they felt were missing.

Car washing business, like any other business organization, operates in a volatile business environment. The businesses have to adapt to the changes especially technological changes sweeping the business world today. Nowadays, for an entity to remain relevant and competitive, it has to embrace innovation and integrate it into its framework to ensure that clients are served efficiently and effectively. Through a feedback system, the business and customers can exchange information. This necessitates a development of an information management system within the business. With the new possibilities that come with information management system, many organizations have crumbled under the challenges the new system's dispensation.

The project also will have a website that will disseminate important information tailored to the needs of customers and ensure the services are delivered promptly. By evaluating the shortcomings of the existing information, the proposed business will take into account the concerns raised and use it to develop a comprehensive information system that eliminates all the bottlenecks. From the streamlined information management system, assessment of issues that

involve customers, employees, products and services, and communication with other stakeholders can be handled efficiently.

The main objective of the new app is to develop an excellent customer experience never experienced before. Through its network, the app will be able to ensure that customer-business relationship is given priority. By being in the forefront of innovativeness, the business will be able to meet customer needs and deliver the services efficiently. The app should also be able to function efficiently and avoid errors that may occur while placing customer orders, managing client loyalty programs and maintaining capacity in line with anticipated demand.

### **Project Objectives**

The main objective of this project is to design, develop, implement and test a car wash business app to meet the needs of customers' effectively, efficiently and timely. The app will support the establishment, maintenance and management of customer information, making effective orders and scheduling, managing the customer loyalty program and maintaining customer feedback.

The project is also supposed to aid the business in decision-making, with appropriate record keeping and data management so as to enhance statement generation to enlighten the management regarding customer satisfaction. Furthermore, the app can be utilized as a platform to enable payments for the car wash. Lastly, the data from the app can be employed to cautiously to plan the future and guarantee that sufficient capacity is preserved to attend impending orders. Thus, the app will be established with the wishes of the clientele and the administration in mind. Ultimately, when the business capacity is subscribed, the app can be used to plan at home service for clients (Khanduja, 2009, pp. , 2009).

### **Project Benefits**

The obvious benefit is that the project is going to accrue profits. By offering quality services, more customers will be attracted, and the client base will increase. This in return will be increasing the profits. The cash washing centres will receive more traffic and be able to schedule online for the services. Increased clientele in car washing centres means better remuneration for the service men.

The app is also going to create employment opportunities for many people. From the development of the app through to car washing, individuals are going to be employed to ensure the business objective is achieved. Through the income earned, individuals can improve their standards of living and develop the community around. The website will need someone to maintain and update it frequently, orders need to be scheduled, and payments need to be verified and any other responsibility will need someone to be in charge.

The app is also going to benefit clients seeking car washing services. By simply logging into the app, they can scan for the available car washing centres, place an order, receive a schedule and get the service conveniently. Clients who are new in town and need their cars washed don't need to know the town to be served. The app is going to locate for them the nearest washing centres where they will receive the service. They can also check before hand the charges for the service and prepare adequately to avoid embarrassment.

The other benefit of the app is that it gives clients flexibility. They can schedule for a car wash anytime they want and be guaranteed that they will be served. They clients also have a variety of service centres they can choose from and from the service catalogue, they can choose

the kind of service they want. Recent statistics shows that the average smartphone owner spends at least two hours on his phone. While they may not be using the app, the split moment the app is on their way while scrolling or scanning the devices can subconsciously market the product. With hands-on information, loyalty programs can be digitized (Haselmayr, pp. , 2014).

### **Project Risks**

Since the objective of the app is to provide online services, it's going to utilize the services of cloud providers. The risks, therefore, are likely to come from using the cloud. One of the risks of using the cloud is that it denies the owner total control. By purchasing IT services from a cloud provider, one lacks absolute control over the computing assets the business requires to function. If cloud service provider changes business or goes out of business or charged more, the business is likely to suffer dire consequences by incurring more costs which will eat into the profits. If the business doesn't want to incur the cost, it's going to shelve it to the clients who may stop using the service.

The cloud providers are also not the same hence no flexibility to change to another provider. One may remain stuck to only one provider even if the service is poor. This can be attributed to the diverse hardware, software, settings, and configurations used by different providers. Customized app can only function well in the environment it was designed for. Changing the cloud provider means modifying the app which will take time and resources unless cloud computing industry undergoes standardization (Lindner, 2013).

The data is usually protected by the cloud provider. This is risky because one is not assured of the security of the data. Being a second party, cloud provider may not have the same motivation of safeguarding the data as the owner. Data can be destroyed or lost. The hackers can

steal the data, information frozen by authorities or secret business information stolen. Many providers use general encryption keys to manage the storage and backup of client data. This means that hackers can easily infiltrate the cloud provider and access the data by cracking the encryption.

Cloud providers serve many different clients with different volumes information. Given their resources, they can manage to employ better security mechanism better than a small organization. This means that the security of business data is in the hands of someone else. The tendency to house data from different clients on the same servers means that the business information may fall into the hands cyber criminals who had no intention of stealing such data. Some of the providers don't even allow their customers to do any inspection (Shrum and Murray, 2013, pg 1-3).

### **Project Activities**

The project activity is the development of the app. The following are the stages followed in creating the app.

### **Analysis of Requirements**

The task of creating an app is to extract the requirements of the software. This requires proficiency and knowledge in software engineering in order to identify deficient, vague or ambiguous requirements.

### **Specification**

This section is mathematically rigorous as it deals with the exact description of the software to be written. Ideally, the successful requirements are written by understanding and adjusting

applications that are already developed. The specification is most essential for an exterior interface that must always remain stable.

### **Architecture of the Software**

This is the abstract representation of the system. Architecture is concerned with ensuring that software system meets the requirements of the product, in addition to ensuring that any future requirements will be addressed easily (Brown, 2015).

### **Implementation**

This where the design is executed through coding. It looks like the most obvious constituent of the software engineering, but is actually demanding and forms the major part of the project. How the project is going to be managed must be planned and key stakeholders involved. The scope of the project must be defined and agreed upon. Since this phase may involve a number of people, a schedule of tasks and datelines must be developed (Hallman, 2011).

### **Testing**

This where sections of the software are tested to ensure they function as required. The app is eventually tested too to check if it executes the functions designed for. The app usability and consistency are also tested. The testing can be done in variety of devices like phone or tablets and different operating systems. The main platforms include Android and Windows. At the end of the testing process, the following task must be accomplished: functional testing, performance



testing, memory leakage testing, interrupt testing, usability testing, installation testing, certification testing and security testing (Joseph, 2015).

### **Documentation**

The interior design of software must be documented for future maintenance and improvement.

### **Training and Support**

Most software projects fail to succeed because developers don't recognize the importance of user friendliness. It's a huge loss of time and resource to develop a software nobody is going to use; it is even sad if what it only takes is to train people on how to use them. Some people, especially the senior citizens don't adapt easily to change. They resist anything that alters the norm and venturing into the new unaccustomed setting is unlikely. During deployment, it is important to train software fanatics, then shifting the gear to the neutral users and eventually incorporating the rest of the population. The users at first will have a lot of queries and software glitches which leads to the subsequent stage of the software (Select Business Solutions, p. n.d.).

### **Maintenance**

Maintaining and improving software to handle the newly exposed complications or new desires can take more time than the original development of the software. It may be necessary to add more code which may not fit the initial plan or become cumbersome to evaluate the performance of the app. Of all the software development work, maintenance accounts for 60% of the total input. A section of this is debugging. Maintenance can be considered as new work since the system is adjusted to do different things (Flinders, pp. , 2014).

### **Project Costs**

The business proposed is purely software and may require no or little physical premises. The expense that the business is going to incur is in marketing. This can be done by employing agents to market the app, placing advertisement in media, making fliers or brochures or even organizing trade fairs to sensitize the public of the existence of the product. Some amount will be required for training, maintenance and upgrading of the app, and also acquiring the services of cloud provider.

The business will also have hire and train employees to handle queries raised by clients and in case of any problems or difficulty in the use of the app they can solve them or forward the issues to the relevant authority. The employees will join customer service team which will handle customer issues.

The main cost incurred in the project is the cost of developing the app. Developing a good and reliable app requires a resilient abstract foundation, good preparation, brilliant networks and talented individuals to do the design work and engineering stages. The app needs in-depth research so as to avoid doing identical projects to ones already existing in the market. The target group must be incorporated during the research process. Deciding the platform the app is going to be built is also important. An excellent creative workforce is needed to develop the software especially those with user experience, interface design, and visual design. The point here is that highly skilled personnel must be hired (Mehra, 2014).

### **Conclusion**

The cash wash business app is a noble idea that aims to bridge the gap between car washing businesses and its clients. The objective is to automate services provided in car wash enterprises through online orders, scheduling, payment and feedback management. The positive about the

app is that it can be used across any country. Car washing centres only have to subscribe to the service and they are included in the app community. Through the profit proceeds, the app business can expand to newer grounds. Major towns and cities are the main targets as they have a large number of vehicles hence good business for car wash. As business improves, additional features can be added. Mobile washing services can be introduced. One of the major benefits of having a mobile app is that all the information that one would like to share with customers is right at their fingertips.

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