Project plan

We will develop **an ecommerce site** where people can buy electronic products.

1 Introduction

1.1 Purpose and scope of project

E-commerce means "Electronic Commerce", which term is also used for "selling on the internet" or

"online-shopping". E-commerce is a kind of trading, products or services; which is conducted via the

internet. Electronic Commerce includes many categories into a single platform, such as online funds

transfer, internet marketing, electronic data interchanging, supply chain management, online

transaction processing, and data collecting. Into this awesome business platform a business can

receive their orders, sell their products and receive their payments through online. Modern people

are well-known with this term, as now they like to get their purchase done from their own home.

That's why; now almost all businesses started building e-commerce website to increase their selling

and spread their business to the customers all over the world. That is why; these business people are giving much importance on eCommerce web design much.

1.2 Product and environment

Electronic commerce (E-commerce) software development organizations face unique challenges based on rapidly changing markets, demanding customers with ill-defined requirements, and resulting priority conflicts between product line development and customer projects. A model of this unique development environment is identified with important linkages among the product function, the project function, and the underlying software development function within an organization. Guided by this model of the E-commerce development environment, a case study of a medium-sized E-commerce company was conducted. Based on this study, eight critical challenges to the successful development of top quality software systems are identified. From these challenges a research model and propositions are presented. As each challenge is discussed unique impacts of the E-commerce environment are reinforced by direct quotes from in-depth interviews. On-going research will draw upon the research model and propositions to provide insights on how best to develop software products and deliver customer projects in E-commerce environments.

1.3 Customer's current system and other similar systems

There's a lot of excitement about new technology in customer service, support, and success. The progress of video, real-time messaging, chatbots and artificial intelligence (AI), cryptocurrencies, self-service, and even customer success itself, all present the potential for big changes in the day-to-day workings of customer success practitioners.

But with new technology come challenges, too. There's a steep learning curve when it comes to learning to use and adapt to new technologies, they can be costly for businesses to implement, and there's the looming concern we all feel about some new tech.

There are some similar systems but we want to do something new.

1.4 Project constraints

While this constraint is quite similar to scope, it's slightly different. Scope defines the exact desired outcome.
Quality sits slightly apart from the other three project constraints appearing inside the triangle because it is almost always affected by any change to the other three. At the same time, changing quality expectations will most certainly impact the project's time, scope, and cost.

One of the most important stakeholder considerations, project time (how long it will take to deliver), is a vital measure of project success. Your task is to estimate project time as accurately as possible, which requires a blend of research and experience.

Equally important to stakeholders is how much a project will cost. As with time constraints, your budget estimates need to be presented in a range

1.5 Definitions, abbreviations and acronyms

Electronic commerce, commonly known as e-commerce, is the buying and selling of product or service over electronic systems such as the Internet and other computer networks. Electronic commerce draws on such technologies as electronic funds transfer, supply chain management, Internet marketing, online transaction processing, Electronic Data Interchange (EDI), inventory management systems, and automated data collection systems.

Modern electronic commerce typically uses the World Wide Web at least at one point in the transaction's life-cycle, although it may encompass a wider range of technologies such as e-mail, mobile devices and telephones as well.

Customer expectations for how and when they buy products have changed substantially over the past few years. Multi-channel selling was once limited to managing direct sales, a call centre, a website, and possibly a partner channel.

For example: basic user
normal people end-user
customers super-user
admin user
UI User interface.

2 Project organisation

2.1 Group members

2.2 Customer

2.3 Related organisations

3 Requirements

3.1 Functional requirements (main goals)

Main functional requirements are listed below. This mainly includes some fixes in the existing system. Backlog should have them in detail.
Admin:

- Administrators should be able to manage eCommerce applications using Web browsers.
- Data managers should be able to delete users.

- Site administrators should be able to change the status of goods purchased by users after items have been shipped.
- Administrators should be able to view all user transactions.
- Site managers should be able to view all transactions for the day.
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General User:

- Users should be able to use the eCommerce application from any Web browser supporting HTML 3.2 (or later) and cookies.
- Visitors new to the site should be able to register by themselves. Users will be differentiated by unique user identifiers.
- Transactions should be secure. That is, a basic authentication mechanism must be built into the application to prevent unauthorized persons from making transactions on a user's behalf. Secure socket layers (SSL) or other encryption mechanisms are typically used to thwart the access of sensitive information (such as credit card numbers) sent to the server by Web browsers.
- Site visitors should be able to purchase goods or services via the electronic store.
- Users should be able to view a complete list of specified items available through the site.
- Users should be able to search for items by related attributes. For example, visitors might search for CDs by artist, album title and/or genre or search for books by author, title and/or ISBN number.
- Site visitors should be able to search the database using relevant keywords to identify items of interest.
- Users should be able to select items of interest and add them to their shopping carts for future purchase.
- Visitors should be able to modify the quantities of items in and/or delete items from their shopping carts before checkout.
- All selected items should be shipped to the user following purchase.
- Users should be able to view the status of items they have ordered.
- Large numbers of users should be able to use the application simultaneously.
- The performance of the application should not degrade with an increase in the number of goods or services offered.

IT Officer:

- Report on the applications security. Possibly improve.
- Report on the error handling, and logs. Possibly improve. ● Implement HAKA login. (Least priority)

3.2 Non-functional requirements goals

3.2.1 Usability goals

The goal of ecommerce Usability is to fulfill the customer's purchasing needs as quickly and effortlessly as possible. Usability helps to make the site experience seamless for the consumer, which increases sales. Usability powers good user interface design through a user-centered design approach that analyzes the entire ecommerce transaction from the customer's perspective.

3.2.2 Performance goals

We often come across few sites which drives a huge amount of traffic but all the efforts go in vain if your customers are not completing the intended actions for which the website was built. Though optimization and conversion rate might sound very easy to achieve but in real aspects it is difficult when these things come to implementation. There is no hard and fast rule which guarantees conversion rate but few practices if followed, can improve website performance and hence can convert your visitors to customers.

3.2.3 Reliability goals

Check our e-commerce website on a regular interval basis (every 5 minutes for example)

Detect eventual anomalies (network breakdowns, broken databases)

Be alerted in real-time via sms or email in case of anomalies

Get valuable data through performance reports (response time, down/uptime,…)

We operate on a SaaS mode, which means that there is nothing to install in

order to ensure our e-commerce website reliability. All we have to is,

subscribing to a trial account.

3.2.4 Security goals

The frequency and sophistication of cyber attacks has skyrocketed in recent years. Ecommerce security refers to the measures taken to protect your business and your customers against cyber threats.
Let's look at some terminology and common acronyms we should know:

Payment Card Industry Data Security Standard (PCI DSS).

PCI DSS (often referred to as just "PCI") is an industry standar d that ensures credit card information collected online is being transmitted and stored in a secure manner.

International Organization for Standardization (ISO).

ISO is an international standard-setting body that creates requirements that guide businesses in making sure their products and processes are fit for purpose. One of their standards, ISO/IEC 27001:2013, covers data security. Achieving this certification means a business has high quality management systems, data security, risk-aversion strategies, and standardized business practices.

Personal Data.

Personal data or personal information refers to any data that can be linked back to a specific individual — most simply, this includes names, email addresses, and phone numbers. But it can get a little bit more complex as well. Any data set — even scrubbed of specific names or numbers — that can identify a particular person is considered personal data. Protecting personal data is particularly important when it comes to data privacy regulations like GDPR (more on that later).

Transport Layer Security (TLS), Secure Sockets Layer (SSL), and HTTPS authentication.

3.3 User interface requirements (main goals)

The ultimate goal of a good UI is to make the user's interaction as simple, intuitive and efficient as possible. In eCommerce, intuitive interfaces and appealing design are an invaluable part of the user experience and can dramatically impact the performance of a website and ultimately lead to higher, or weaker sales.

An effective UI draws on interface elements that users have become familiar with because they maximize task completion, efficiency and satisfaction. When designing your online shop, you should pay particular attention to the following interface elements:

- Input controls: checkboxes, radio buttons, dropdown lists, dropdown buttons, toggles, and text fields.
- Navigational components: search field, breadcrumbs, pagination, sliders, and image carousels.
- Informational components: notifications, progress bars, tooltips, message boxes, and modal windows (pop-ups).

If user interface design is critical for your system, briefly sketch the main views/states here. Use example pictures of views, menus and dialogs, if possible and appropriate. Use separate sections for different views.

You may also write a separate GUI design plan, if so put reference here.

(HINT: remember to ask end-users' opinion, too.)

1.1 Risk list

List the identified risks or summary at the start of the project.

Table 7.1. Project risks.

Risk ID	Explanation , severity/impact , probability , size/importance
Dropouts	Chances are that members might dropout from the project due to motivation Chances are that members might dropout from the project due to motivation or complexity of code/concept. Impact: Low Probability: Low Importance: This might lead to increase pressure in other members tasks and as a result this could lead them to be a dropout. : Low Importance: This might lead to increase in other members tasks and as a result this could happen for them.

Estimation and scheduling	Some tasks may be underestimated/overestimated and the scheduled Some tasks may be underestimated/overestimated and the scheduled wrong. This may increase time to reach the goals. So, we have to provide a target time for each task. Impact: Medium Probability: Medium Importance: To ensure project deadline is utilized well, this needs to be done carefully. y increase time to reach the goals. Impact: Medium Probability: Medium Importance: To ensure project deadline is utilised well, this needs to be done carefully.

Productivity issues	As it's an E-commerce website, the product quality might be lower than our expectation. But after some trials will be fixed. Impact: High Probability: Medium Importance: This might have a high impact since getting tasks done may include longer time than estimated. Productivity might be low for some because of unfamiliarity of the technology used. Impact: High Probability: Medium Importance: This might have a high impact since getting tasks done may include longer time than estimated.

Gold plating	Premature optimization or doing unnecessary implementation costs the project time. Impact: High Probability: Medium Importance: This may happen passively, without the developer noticing. Proper code reviews should be done in order to avoid it. Premature optimisation or doing unnecessary implementation costs the project time. Impact: High Probability: Medium Importance: This may happen passively, without the developer noticing. Proper code reviews should be done in order to avoid it.
Technical risk	Some difficulties might come up due to setting up or adding new tools/technology to the existing solution to achieve a task. That may prove challenging. As we are using a different technology which is Django and python, so it will take time to master it for developing. Providing enough time may solve this problem. Impact: High Probability: Low Importance: Careful planning should help prevent this.

Inadequate resource	The project size might be quite big for the available resources considering not everyone of us has deep understandings of the technologies used. Impact: Medium Probability: High Importance: This may cause a delay on getting started with the tasks. The project size might be quite big for the available resources considering not everyone has deep understandings of the technologies used. Impact: Medium Probability: High Importance: This may cause a delay on getting started with the tasks.

1.2 Risk monitoring

Monitoring risks and keeping them in checks are essential to avoid any unexpected circumstances that may jeopardize the project.

Steps we will take to monitor risks are:

- Weekly meetings

- Task progress
- Re-assign task to another person if necessary

2 References

[1] W3Schools. Python Tutorial. Available at: https://www.w3schools.com/python/ . Last read 25/10/2020.

[2] Django framework documentation. Available at: https://docs.djangoproject.com/en/3.1/ . Last read 25/10/2020.

[3] JavaScript tutorial of W3school. Available at: https://www.w3schools.com/js . Last read 25/10/2020.

3 Open issues

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4 Ideas for further development

1. Adding the possibility to install the application or add it to desktop
2. Improving the offline user experience (at the moment, when offline, the standard dinosaur game of Chrome begins)
3. Suggesting a UI revamp

1. APPENDIX A [...Z]

The original task list provided by the client