

# An Undergraduate Internship/Project on: Official Website of Creative Limited.

By:

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**Spring, 2021** 

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**April 30, 2021** 

Dissertation submitted in partial fulfillment for the degree of Bachelor of Science in Computer Science

**Independent University, Bangladesh** 

### Attestation

I hereby solemnly declare that the project work entitled "Official Website of Creative Limited", has been supervised by Mohammad Noor Nabi, Internship Supervisor and Senior Lecturer,
Department of Computer Science & Engineering,
Independent University, Bangladesh.

I ensure that the project report has not been submitted either in whole or part for any degree or Diploma in any university previously. I hereby warrant that the work I have presented does not breach any existing copyright rule. I further undertake to indemnify the university against any loss or damage arising from breach of the forgoing obligation.

Name	Date	
Signature		

# Acknowledgement

I'd like to take an opportunity to thank my Creator for giving me the strength, intelligence & patience to deal with all the hardships. Then I'd like to thank my honorable supervisor, Mr. Mohammad Noor Nabi, Internship Supervisor & Senior Lecturer, School of Engineering, Technology and Science, Independent University, Bangladesh (IUB), for all his instructions to overcome any obstacle while preparing this report. Without his guidance this would have been a big mountain to climb on.

My experience in Tech Connect as an intern was pretty amazing & all credit goes to Mr Rajon Hossain, Chief Operation Officer (COO) at Tech Connect. I'd like to take a moment & thank him for giving me the opportunity to work at Tech Connect & teaching me the work culture & helped me a lot to understanding the corporate environment. I'm extremely thankful to him for his guidance which will definitely help me to become an efficient web developer.

Lastly, I'd like to show my humble gratitude to Independent University, Bangladesh (IUB), for having such program where students can prepare themselves for a really competitive corporate world.

And at the very end, I'd like to thank my parents for their endless support.

Without their support & blessings things would have been very tough for me.

### Letter of Transmittal

April, 2021
Mohammad Noor Nabi
Senior Lecturer
Department of Computer Science & Engineering
Independent University, Bangladesh (IUB)
Bashundhara R/A, Dhaka 1229, Bangladesh

#### **Subject: Report submission of the internship**

Sir,

With due respect & humble submission, I'd like to thank you for the guidance and support you have given me to prepare this report. With pleasure, I am submitting my internship report in Tech Connect for 3months.

During this period, I have gained real-life work experience, understood the difficulties & challenges I might face in future, understood the whole process of how a company operates & how to carry out a task. With proper guidance, I have successfully finished all the tasks & finished my report where all I have presented all the things I learned & all the experiences I have gathered.

Therefore, I pray & hope that this report satisfies your expectations & meets all the criteria's that you have provided.

Thank you for your patience.

Sincerely Yours, Faiaz Amin Mimo ID:1610202

# **Evaluation Committee**

Signature
Name
Supervisor
Signature
Name
Internal Examiner
Signature
Name
External Examiner
Signature
Name
Convener

### **Abstract**

In this report I have described my internship period of 3months, my working experience as a front-end developer for Tech Connect. I have covered all my activities, some in brief & some in short which helped me to achieve the goals. I have stated all the skills I have developed in this phase.

I have described everything about the tasks I had to carryout, my interaction with both the client & my senior clients, all the progress I have made with my team & I explained how to finished the job I was assigned.

This report also states the problems I faced due to the new environment & how I overcame those difficulties. It also states my working pattern which was pretty different from the usual because of the pandemic situation.

In this report, I have described about the website & it's testing at the very end. I have emphasized about all the skills I have developed & all the languages we used. Lastly I have a conclusion about my internship experience.

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### Introduction

Web development is the building and maintenance of websites; it's the work that happens behind the scenes to make a website look great, work fast and perform well with a seamless user experience.

Web developers, or 'devs', do this by using a variety of coding languages. The languages they use depend on the types of tasks they are performing and the platforms on which they are working.

Web development skills are in high demand worldwide and well paid too – making development a great career option. It is one of the easiest accessible higher paid fields as you do not need a traditional university degree to become qualified.

The field of web development is generally broken down into front-end (the user-facing side) and back-end (the server side). Let's delve into the details.

### 1.1 Background

This website is a type of e-commerce website where people can buy computers, laptops & any other hardware related to computer. Customer can also order a custom made pc or laptop according to his/her need. With the help of this site, it becomes very easy for the customers to choose their desired product within the price range. This is very useful during the pandemic situation when it's very risky to go to the physical shop & spend too much time comparing the products within the price range. This website will filter the desired products & it becomes 10-times easier to compare between them. The approach was taken for helping this gadget company all over the country, where the clients can login easily to the website to place their order.

### 1.2 Objectives

Main goal is to fulfill all the demands & expectations of the customer within the allocated budget & time.

Here are some of the basic objectives:

- To make it as feasible as possible for the customers. Though in some cases the customer might have to visit the shop for face to face interaction, for example while buying any custom made computer.
- To make the website as user friendly as possible.
- To make the website more time consuming than any other similar website.
- To make the interfaces less complicated for the user.

# 1.3 Scopes

Here is the list of scopes of the work:

- Log in- For all the users
- Add products- For admin
- Payment history- For admin
- Chart generation- For admin
- View products For customer & admin
- Add products- For customer & admin
- Delete products- For customer
- Categories- For customer
- Payment method-For customer
- Message- For customer & admin
- Log out- For all the users

### **Literature Review**

### 2.1 Relationship with Undergraduate Studies

My project is directly related with few courses I have done during my undergrad period, which helped me a lot to understand a lot of things regarding the project. In those courses I learned about Database development process, models & diagrams related to database, framework, Php, MySQL and XAMPP, JavaScript & the proper use of github.

Here is the list of the courses:

- CSC401- Database Management
- CSC405- System Analysis & Design
- CSC455- Web Applications & Internet

### 2.2 Related works

Here is the list of projects done in the following courses:

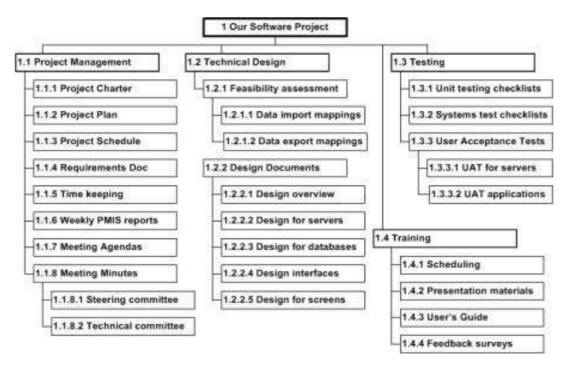
- CSC401- Database Management- A database system of UGC
- CSC405- System Analysis & Design- An application for Vehicle servicing management system (VSMS)
- CSC455- Web Applications & Internet- A website for online restaurant reservation

# 3.1 Project Management & Financing

#### Work Breakdown Structure

WBS is a well structured breakdown of a project into simplest form. Every small fact & components are emphasized in WBS. This gives a basic idea of how the approach of the project will be & how to proceed forward within the allocated time. This is very useful to keep the track of the work & every small glitch is very easily identified. Cost can be easily measured by using WBS & it reduces the risk to minimum.

Here is the figure of WBS:

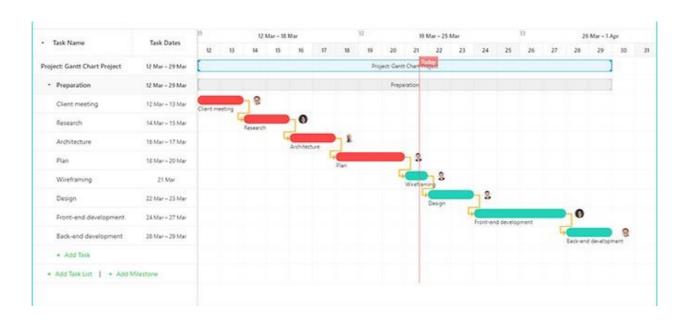


### 3.2 Process/Activity wise Time Distribution

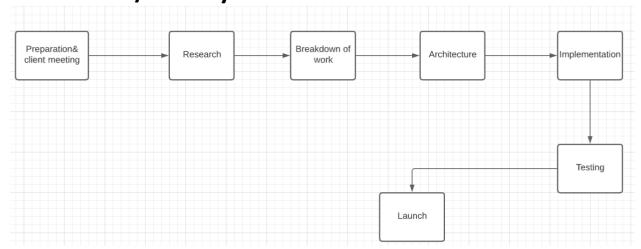
The activity duration estimates are an estimate of how long each activity in the activity list will take. This is a quantitative measure usually expressed in hours, weeks, days, or months. Any work period is fine, and there will be use different work periods for different activity.

#### 3.3 Gantt Chart

Here's Gantt chart:



3.4 Process/Activity wise Resource Allocation



Preparation & client meeting is the first phase where all the demands and costing are fixed after taking the right initiative. Second phase is for all the research about the work. In this phase, all the group members starts their research about the work, what should be done & what not, what tools must be used & what measurements should be taken. After all the research, the whole work is breakdown into small parts & allocated to the right person for each task, that's the third phase. The developers design the architecture of the whole system. Diagrams & charts are made to have a broader & better vision of the project. In the fifth phase, the actual development starts. Developers with allocated tasks, starts implementing the designs & codes. Due to the pandemic, we had to face a lot of problems in communicating with each other. We communicated through google meet as well. Our works are assigned through github & bitbucket as we worked a lot from home as well. The sixth phase is all about testing the product, to identify the glitch or bugs, whether the application runs well or not. All the errors were fixed after the testing. The last phase is the launch of the product which has been delayed due to the pandemic. All the frontend work is done, some of the backend work are still ongoing & hopefully they'll be done within the coming week.

#### 3.5 Estimated Costs

Requirements	Amount
DOMAIN	10000
<b>ELECTRICITY BILL</b>	45000
<b>EMPLOYEE PAYMENT</b>	60000
TESTING	16000
TRANSPORT	8500
PC COMPONENT	14500
MAINTANCE	7800
TOTAL	161800

### Methodology

Agile software development refers to software development methodologies centered round the idea of iterative development, where requirements and solutions evolve through collaboration between self-organizing cross-functional teams. The ultimate value in Agile development is that it enables teams to deliver value faster, with greater quality and predictability, and greater aptitude to respond to change.

Scrum and Kanban are two of the most widely used Agile methodologies.

We used modern Agile methodology which is because of it emphasizes few core values. These are:

- Working software over comprehensive documentation
- Individual and team interactions over processes and tools
- Customer collaboration over contract negotiation
- Responding to change over following a plan

We had so many benefits using this method such as improved productivity, customer satisfaction was visible, helped us to have a proper pace in long run, reduced our cost & gave us better quality with risk being reduced.



# 5.1 Body of the Project

#### **Work Description:**

Firstly, here are the languages used for frontend development:

- HTML
- BOOTSTRAP
- JAVASCRIPT
- CSS

I handled the frontend part of the project under Mr. Rajon Hussain(COO). At the very beginning they taught me about taking requirements from the client & how to setup a framework. The idea was approved after taking the requirements & demands of the client. The main aim was to increase their sales, reduce their employee cost & promote online shopping. They want to emphasize more on website & less in physical store. The interface is pretty easy to handle, time efficient & less risky.

### 5.2 System Analysis

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose.

### **Six Element Analysis**

Here are the six elements:

- Human
- Computer/Laptop/Hardware
- Software
- Communication
- Database
- Hardware (non-computing)

These elements engage with each other in a process for a specific outcome.

### **Feasibility Analysis**

Feasibility analysis is done to calculate the percentage of development of the product from a real world point of view. Few types of feasibility were taken under consideration & those are:

- Technical feasibility- It helps the company to determine whether the technical resources meet capacity and whether the technical team is capable of converting the ideas into working systems. Technically we didn't face much problem as Tech Connect is highly equipped & high quality equipments is their first priority.
- Economic feasibility- Generally, it means whether a business or a project feasible cost wise and logistically. Economics calculate economic feasibility by analyzing the costs and revenues a business would incur by undertaking a certain project. After the calculation, it is found that the company would be highly benefited once the server goes live. A lot of cost was already cut before the initiative of the website was taken. As the interface is very much user-friendly, audience engagement would be satisfactory even during the pandemic.
- Schedule feasibility- Schedule Feasibility is defined as the probability of a project to be completed within its scheduled time limits, by a planned due date.
- Operational feasibility- It is the ability to utilize, support and perform the necessary tasks of a system or program. It includes everyone who creates, operates or uses the system. To be operationally feasible, the system must fulfill a need required by the business.

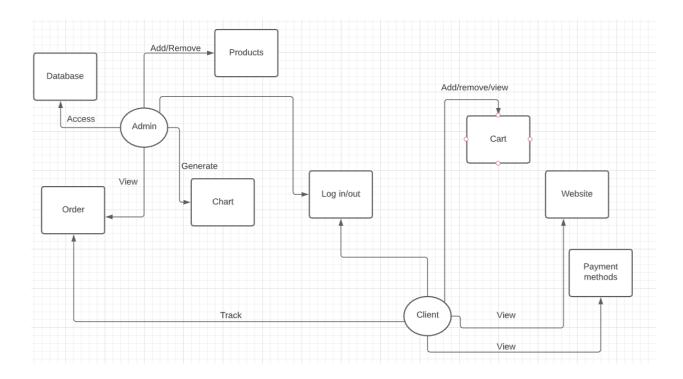
### **Problem-Solution Analysis**

It is mainly used to overcome any kind of problems which happened to me in the very beginning. While working, I had to face many problems regarding frameworks & the ability to identify the problem is the main challenge I faced. A lot of time, we had to change the previous design & implement a new while fixing bugs. Specially during the homepage, we had to show few demonstrations to the client before the current one. This decision was taken after problem-solution analysis.

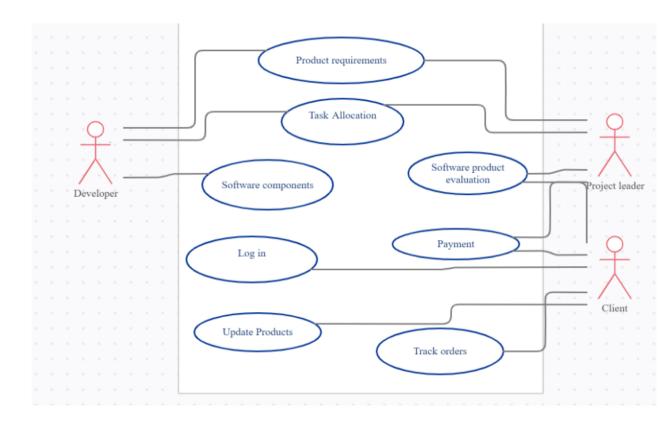
### **System Design**

### **Rich Picture**

The following Rich Picture shows how the system works. It shows users access to the system.



### **UML Diagrams**



The visually representation of the system along with its main actors, roles, actions, artifacts or classes, in order to better understand, alter, maintain or document information about the system.

### **Product Features**

Input: Everything needed for a project to go live is a part of the input. So example, the plane, documents, money, effort of the developers & all the hardware used to accomplish the goal.

Output: All the things a user can use.

Here are the outputs:

Customer login
Search bar
Shopping cart
Phone number
Personalized items
Contact us
Payment system icons
Terms and Conditions, Privacy Policy, Sitemap
Consistent image size
Product title
Good quality of images with zoom in functionality
Pricing information with potential sales or discounts
Add to cart button
Add to Wish List and Compare button on each product page
Product description
Product description
Related products
Accept all payment methods
Cart details
Final price
Shipping method
Billing address and shipping address
Sidebar: blog search, categories, popular posts

# **Results & Analysis**

In order to launch a product, the most important thing is the results after all the hard work. While developing the product, we had to get rid of the bugs & after all the framework was done, a test was run to verify the features are running accordingly or not. This analysis was done thoroughly so that a minimum glitch can be identified & fixed.

First we went through a detect test where all the member of the development team took part. Each module was tested & it was shared with the whole unit. Fixing the bugs was the first thing we did because it's impossible to move forward without fixing the bugs. Another testing will be held after the backend part is done.

For log in — I have checked whether the user login is working or not. The user information is added to the log in page & hit the log in button. The website allowed the user to have access of the next interface & when the combination was wrong, "Log in failed" message appeared.

For add products- I have checked whether the admin can add products after a successful log in. Add button worked after clicking in the next interface. Admin can see the changes.

For remove products- I have checked whether the admin can remove products after a successful log in. Delete button worked from the database & the changes appeared in the next interface.

All the features were tested by the frontend development team & was reported to our project

manager.

# **Project as Engineering Problem Analysis**

### **Sustainability of the Project**

Meeting the demands of the client was the first challenge we had to face. And when the demands are fulfilled, half of the job is done. The next half depends when the product goes live. The main goal is to create more audience, increase the sales & get new buyers. Tech Connect managed to make the product as user friendly as possible & we're 100% confident about the sustainability of the product. This product will definitely give a tough competition in the market.

### **Addressing Ethics and Ethical Issues**

Highest level of protection has been provided from the end of Tech Connect. Any kind of breaching of personal privacy would be directly notified to the server our server/security unit. Some high protection has been taken for payment method.

- The Encryption Approach
- Secure Hypertext Transfer Protocol
- Payment Card Industry (PCI) Compliance
- Digital Signature

### **Future Work & Conclusion**

#### **Future Works**

After the development part ends, the job doesn't end. In future, the product will be launched as a mobile application for android, iOS & windows. Increase the clients & move to foreign clients as well. Different languages will be provided with time.

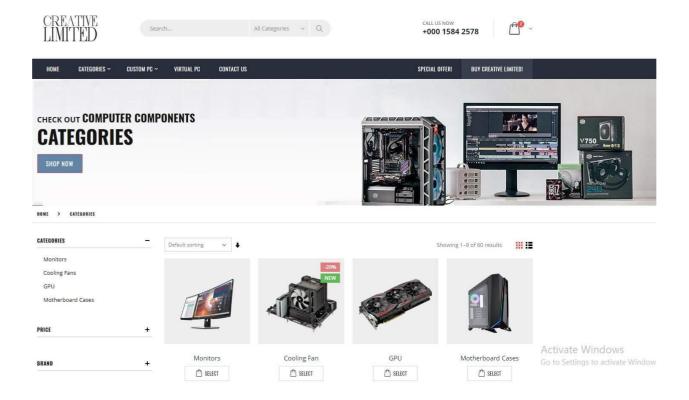
#### **Conclusion**

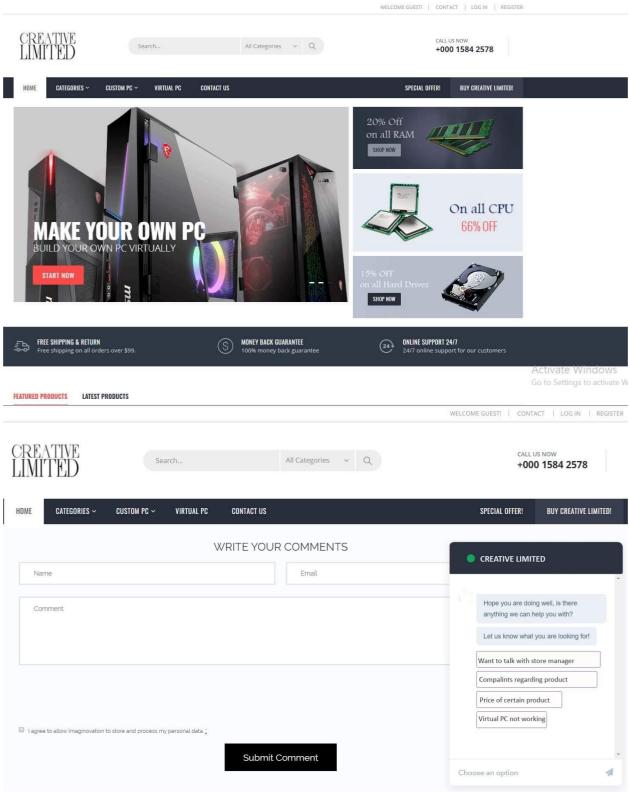
Overall, this internship till now was an excellent experience, as I got to improve my technical skills and gain new knowledge, while I learned the different attributes of working for a company. I also got the glimpse of a professional life. Although I have some more time to spend here & probably more than that, but during this time, I met new people and engaged with them & developed a very good work relationship with them which I believe will help me in future. Also, the skills and experience I gained by working on the tasks I was assigned, will surely help me while facing challenges on a working environment. I am grateful to Tech Connect for giving me the opportunity to gain an understanding of the competitive landscape in the professional sector. It has certainly helped me to define my professional career path in web development.

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# **UI image & Snippets**





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