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**Zeus CompTech**

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**Future Tech**  
**Software Requirements Specification**  
**For Online Computer E-Commerce**

**Version <1.0>**

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Group W	

## Revision History

Date	Version	Description	Author
23/03/21	1.0	<details>	Tenzin Tashi Tenzin Choklang Shuren He Sam Mosavarpour Kabita Rezwana

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# Software Requirements Specification

## 1. Introduction

### 1.1 Purpose

The purpose of this document is to build an online computer store that has an emphasis on convenience for the user that other competitors do not have. The customer can choose their OS, CPU, GPU RAM, Storage capacity, battery size, screen size, screen resolution and the system architecture

### 1.2 Scope

The purpose of the online web store is to ease the computer buying process and to create a convenient and easy to use site for the customer. There will be an easy to use discussion forum that the customers can use to exchange information about products. This gives the customer the ability to make a more informed decision.

### 1.3 Definitions, Acronyms, and Abbreviations

Configuration	Configuration explains what a user needs to do in order to start using software.
FAQ	Frequently Asked Questions
RAM	Random Access Memory
GPU	Graphics Processing Unit
CPU	Center Processing Unit
OS	Operating System
HTML	Hyper Text Markup Language
CSS	Cascading Style Sheet
DB	Database

### 1.4 References

- <https://html.com/>
- <https://reactjs.org/tutorial/tutorial.html>
- <https://docs.mongodb.com/manual/tutorial/>
- <https://developer.mozilla.org/en-US/docs/Web/CSS>
- <https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-database>

### 1.5 Overview

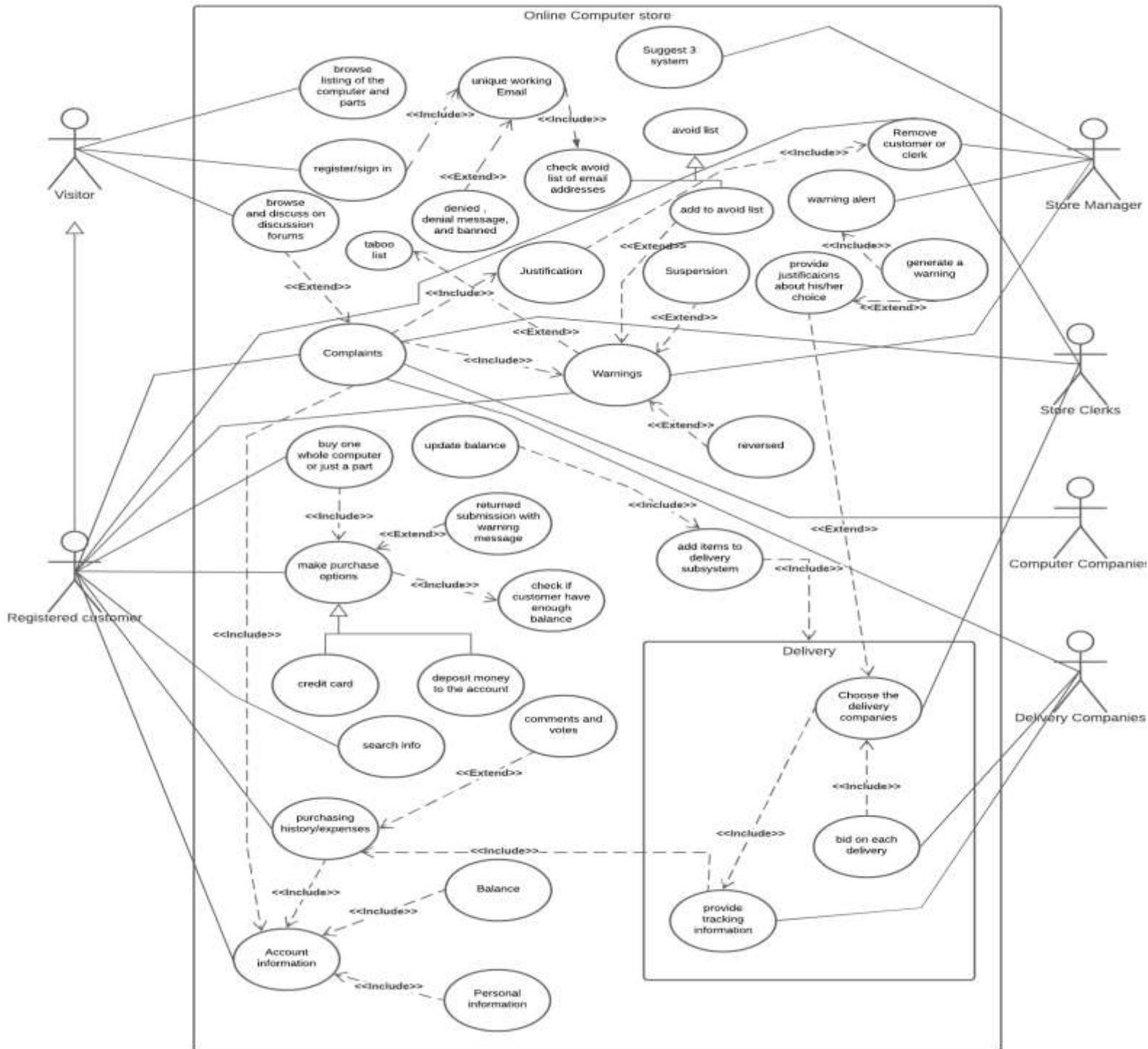
The next stop we are going to focus on the specific requirement for our website. To be more specific, we will introduce how we design our website and develop software. What kind of computer languages we will use. Some models we plan to use and some diagrams we plan to draw. These models can be used as a platform to simulate,

People will know the relationship and have a better understanding of what we are going to do. Assumption and dependencies might help us keep debugging our website with some data. In short, the rest part is key for the group.

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## 2. Overall Description

### 2.1 Use-Case Model Survey



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## 2.2 Assumptions and Dependencies

It is assumed that the users of this application are familiar with using an internet browser and also familiar with handling the keyboard and mouse.

Since the application is a web based application there is a need for the internet browser. It is dependent on the user to have a decent internet connectivity.

The issue of payment security needs to be considered.

## 3. Specific Requirements

For front end development the software requirements we will use HTML and CSS to develop a simple user friendly page for our clients/ buyers. And for backend software requirements we will be needing REACT & MongoDB to run the engine for this website.

An online store that has multiple home pages that shows 3 or more most important features that will allow our buyer/user to navigate easily. Ex1: The Top Hottest computer that were sold most frequent recently, Ex2: A page dedicated to shop by specific Operating systems(Mac,Windows,Linux), Ex3: Shop by specific use cases such as Business(high capacity ssd storage and fast ram), Scientific computer(fast multi thread cpu with AI-workflow and high count tensor flows) or gaming (moderate cpu with overclocked gpu with RTX ray tracing feature).

Also we can have sub pages where we can sell specific parts that our buyer/user needs Ex : CPU, GPU, RAM, Monitor, Power supply and more.

We would be working on subsystem where we keep our user's info (account number, email, phone), purchase's records (history, previous purchased item info),And mainly A digital cash register for us to do store and maintain sales records.

Additionally A delivery subsystem with 2 delivery companies. That will first pass by the system after an item has been paid for. The delivery company should also provide the buyers with tracking information

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### 3.1 Use-Case Reports

Store Manager to “Suggest 3 system” use case relationship:

- Store manager suggests 3 systems for the home page.

Visitor to “browse listing of the computer and parts” use case relationship:

- Visitors can browse the listing of the computers and parts.

Visitor to “browse and discuss on discussion forums” use case relationship:

- Visitors can browse through the discussion forums.

Visitor to “register/sign in” use case relationship:

- Visitors can also register to become a register customer.
- “Register/sign in” use case to “unique working Email” use case relationship:
  - To become a registered customer, the visitor needs a unique working Email.
- “Unique working Email” use case to “check avoid list of email addresses” use case relationship:
  - The email address is checked if it's present in the avoid list of email addresses.
- “Denied, denial message, and banned” use case to “unique working Email” use case relationship:
  - If the email address is present in the avoid list, then the visitor is denied being the registered customer and a denial message is sent, any future applications will be denied without reply.

Registered customer to “make purchase option” use case relationship:

- Registered customers can only make purchases if balances is supplied through:
  - “Credit card” to “make purchase option”
    - If the registered customer provides working credit card
  - “Deposit money to the account” to “make purchase option”
    - If the registered customer deposit money to the account

Registered customer to “search info” use case relationship:

- Register customer can search info

Registered customer to “purchasing history/expenses”:

- Registered customers can check their purchased history or expenses.
- “Comments and votes” to “purchasing history/expenses” use case relationship:
- Registered customers can comment or vote on the items they purchased.

Registered customer to “buy one whole computer or just a part” use case relationship:

- Registered customers have an option to either buy a whole computer or just parts.
- “Buy one whole computer or just a part” to “make purchase option” use case relationship:
- Registered customer can make a purchase of either whole computer or just a part

Registered customers can also browse the discussion forms or start a discussion, which is inherited from the Visitor.

“make purchase option” to “check if customer have enough balance” use case relationship:

- When a purchase option is made the system check if the register customer has enough balance or not
- “check if customer have enough balance” to “update balance” use case relationship:
- If the registered customer has enough balance, then the system charges the customer and update the *balance*.
  - “update balance” to “add items to delivery subsystem” use case relationship:
    - Once the balance has been updated then the items will be added to the delivery subsystem.

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“returned submission with warning message” to “make purchase option” use case relationship:

- If the register customer doesn’t have enough money on their account, then the purchase option is returned with a warning message.

Registered customer to “Account information” use case relationship:

- Registered customer will have access to their account information:
  - The account information will include the customer’s balance, personal information, past complain, past purchases, and past votes on past purchases.

Registered customer to “complaints” use case relationship:

- Registered customers can complain about the item they purchased, the clerk, or the delivery companies he/she dealt with.

Store clerks or delivery companies or computer companies to “Complaints” use case relationship:

- The complained clerks or delivery company or computer companies will have access to the complaints made by the customer.
- “Complaints” to “justification” use case relationship:
  - The complained clerks or delivery company or computer companies need to provide a justification to each of the complaints.
- “Complaints” to “Warnings” use case relationship:
  - For each complaint a warning will be generated to the respected party.
- “Warnings” to “Suspension” use case relationship:
  - If the individual party gets 3 warnings the system will suspend their all rights automatically.
- “Reversed” to “Warnings” use case relationship:
  - If the complaint started by the customer gets reversed the customer will get one warnings

Store Manager to “Warnings” use case relationship:

- The manager has the power to suspend any parties even without getting 3 warnings.
- “add to avoid list” to “Warnings” use case relationship:
- Any customer with 3 complaints will be added to the avoid list
- “add to avoid list” and “check avoid list of email addresses” to “avoid list” use case relationship:
- Both add to avoid list and check avoid list of email addresses inherited from the avoid list.
- “taboo list” to “warning” use case relationship:
- If a word from a taboo list is mentioned in the discussion form it will go to warnings use case which will then go to complaints use case.



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#### Delivery Subsystem:

- Delivery companies to “bid on each delivery” use case relationship:
  - 2 delivery companies will bid on each delivery available after customer purchase.
- Store clerks to “Choose the delivery companies” use case relationship:
  - Store clerks will choose the delivery company based on the price the delivery companies give.
- “Provide justifications about his/her choice” to “choose the delivery companies” use case relationship:
  - If the store clerk doesn’t choose the delivery company with the lowest bidding, then he/she needs to provide a justification of their choice.
- “Generate a warning” to “provide justifications about his/her choice” use case relationship:
  - System will generate a warning if the store clerk doesn’t provide a justification of their choice.
- “Generate a warning” to “warning alert” use case relationship:
  - The system generated warning will be sent to the warning alert as a possible cheating by the store clerk.
- Store Manager to “warning alert” use case relationship:
  - Store manager will receive a warning alert of possible cheating.
- “Choose the delivery companies” and Delivery companies to “provide tracking information” use case relationship:
  - Once the delivery company has been chosen it will provide tracking information.
- “Provide tracking information” to “purchasing history/expenses” use case relationship:
  - Registered customers will have access to the tracking information of the items they purchased.

### 3.2 Supplementary Requirements

For front-end development of the software requirements, we are using CSS to decorate our website. CSS selectors help us to save time when we do the coding part. We also want to focus on the overall design of the website. It needs to be clean and easy for visitors. For example, Creating a nice login page by using Html and JavaScript. In the future, if we want to make it better, we also need a database system to store user’s login names and passwords. It is hard to say that we may consider using scan the QR code to pay or to login in as long as conditions permit.

Multiple home pages do not only introduce our products but also show our visitors the comments from the previous buyers. Our website will automatically provide some related links when visitors have a browser history. Here we do not only sell computer hardware but also mouse pad, Screwdriver Sets 142-Piece Electronics Precision Screwdriver with 120 Bits Magnetic Repair Tool kit for iPhone, MacBook, Computer, Laptop, PC, Tablet, PS4, Xbox, Nintendo, Game console, and so on.

This website also has contracted some delivery companies. When customers place their orders, this system will give them some options about delivery days or fees according to different companies. Deal is a deal. After delivery companies receive customer orders, it is their responsibility to deliver the orders and provide the tracking information. The buyer can judge their services and give some feedback about the delivery companies and products. Feedback can be negative or positive, which will be taken into our consideration whether we rank these products privilege or not.