

# A PROJECT REPORT ON

"IT Service - 1"

Web and API Application

IS A BONAFIED RECORD OF WORK DONE BY

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# 1. Business Model

# 3.1 Business Requirements

What are your products? Size (# of different product types and total # of product items)? Who are your customers? Size (# of individuals, # of companies, daily revenue)? How do you sell your products? Via website or/and B2B channel?

3.2 Technical Requirements

# 2. <u>Design</u>

- a. + Architecture: show components and their relationships/connections.
- b. + Protocols: data flow between customers, processing, and data layers.
  - + Data Examples (examples of all data you use in your components, where those data are store: files, variables, database?).
- c. + If you do the B2B you need to include the architecture, protocols, and request/reply format and the data formats for the B2B part as well.

# 3. <u>Implementation</u>

- Web site address of your company
- Map of all subdirectories and files (with real name) in your system. Specify the needed permission code for each of them. If it's a file then also specify in which programming languages (for program) and format (for data, in text file, or MySQL, ...) it is.
- Specify which parts/codes you have borrowed or started with (later you modified)?

# 4. Demo/Test

Screenshots to show that your system works for all functions/steps.

# 5. <u>Developer's Guides</u> (also put this in README.txt file in your folder)

- How to run/setup your e-business system ?
- What (transactions)/When(situations) your system may not work properly?
- What needs to be changed if your system (programs & data files) move to a different folder?

# 6. **Challenges**

- List errors (one by one) you have encountered while doing this project (from the beginning, organized by programs/transactions) and how you fixed them?
- Any other challenges?

### 7. Conclusions

What you have learned from doing this project?

### 8. References/Appendixes

List of documents and specific web address (full path to the final source) which you use or borrow the software (specify which parts of your system), including the resources provided by the instructor, for this project.

# 1) Business Model:-

# **1.1 Business Requirements**

➤ What are your products ? Size (Number of different product types and total Number of product items) ?

There are four products on the website They are 1)Router

2)Data Storage

3)Low Visualization

4) High Visualization.

At the starting of shopping period .The web site had 50 size for each item.

➤ Who are your customers ? Size ( # of individuals, # of companies, daily revenue ) ? The individual customers who need IT services and data storages. Companies which need data visualization of their transactions.

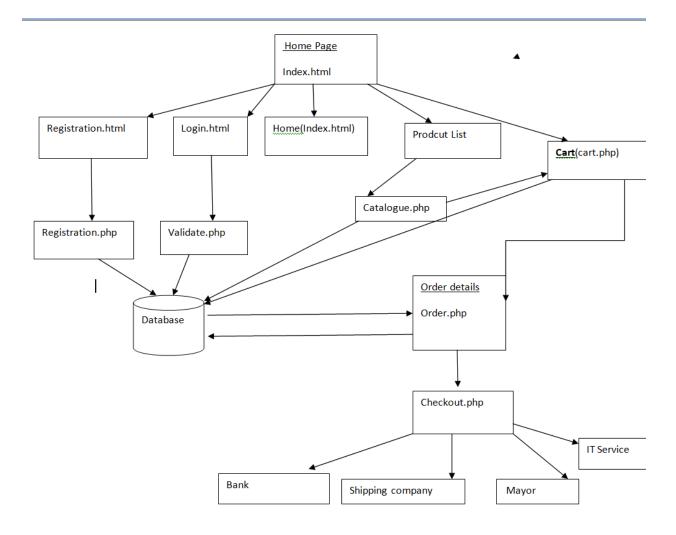
# 1.2 Technical Requirements

Front End:- HTML-5,CSS,JavaScript,Php.

Back End:- MySql,Java,Php. Socket Programming:- Java Database: Running on the Server Project Running On Wyvern Server

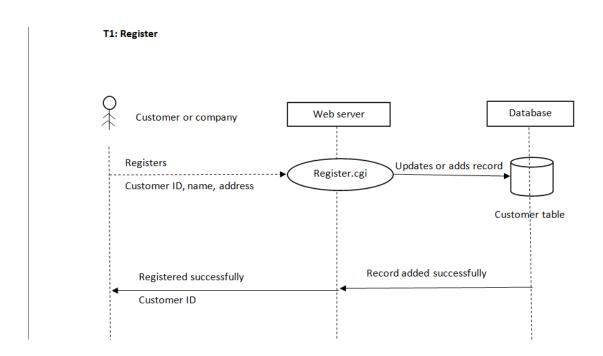
# 2) <u>Design</u>

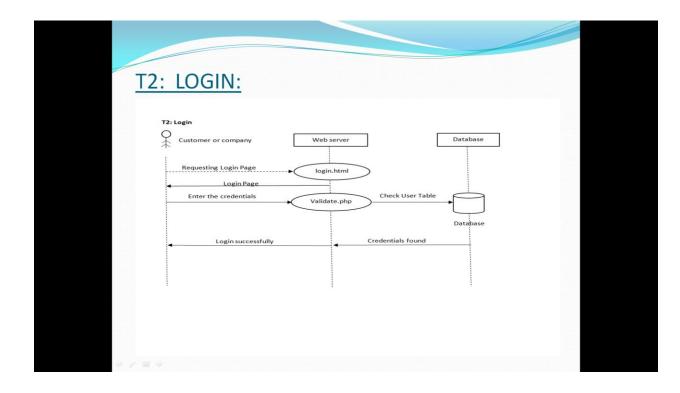
# a. + Architecture: show components and their relationships/connections.

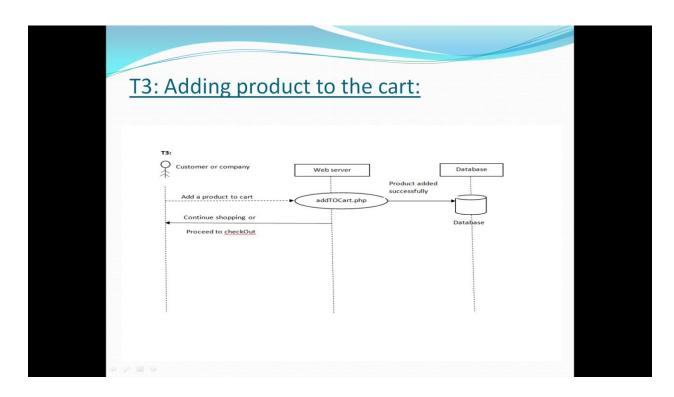


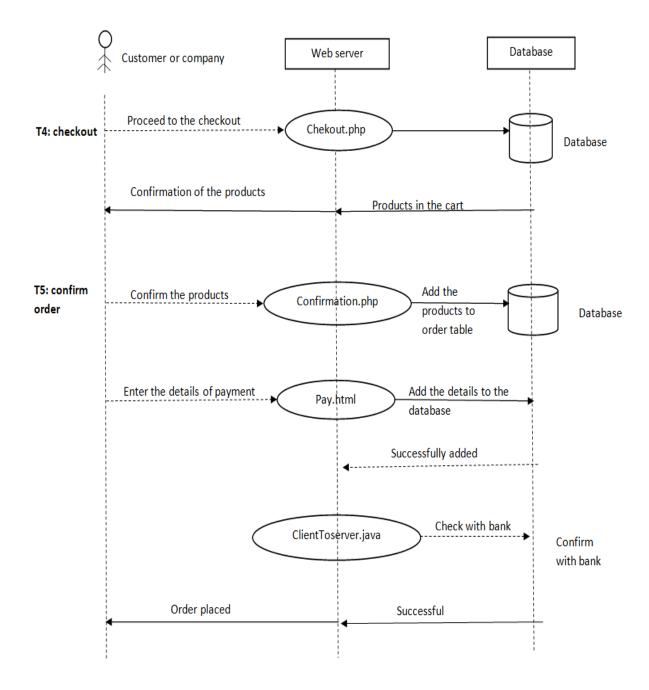
# b. + Protocols: data flow between customers, processing, and data layers.







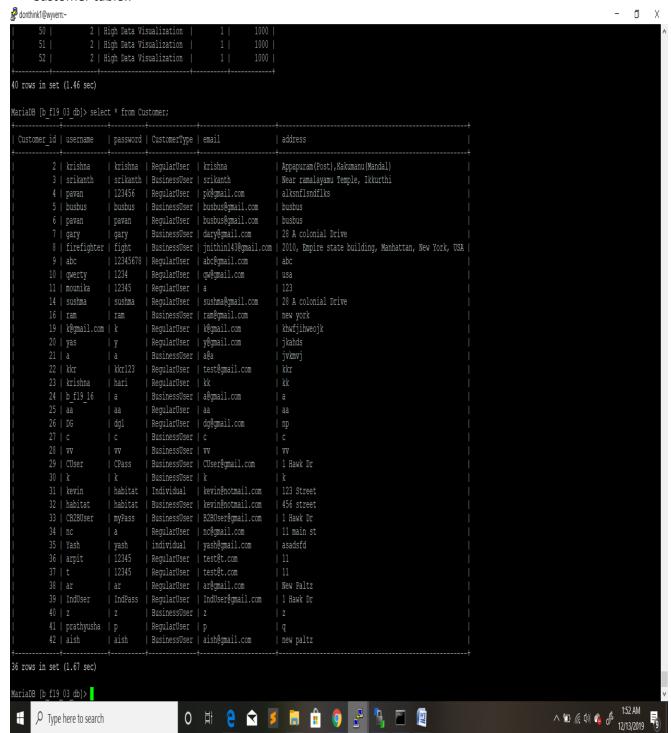




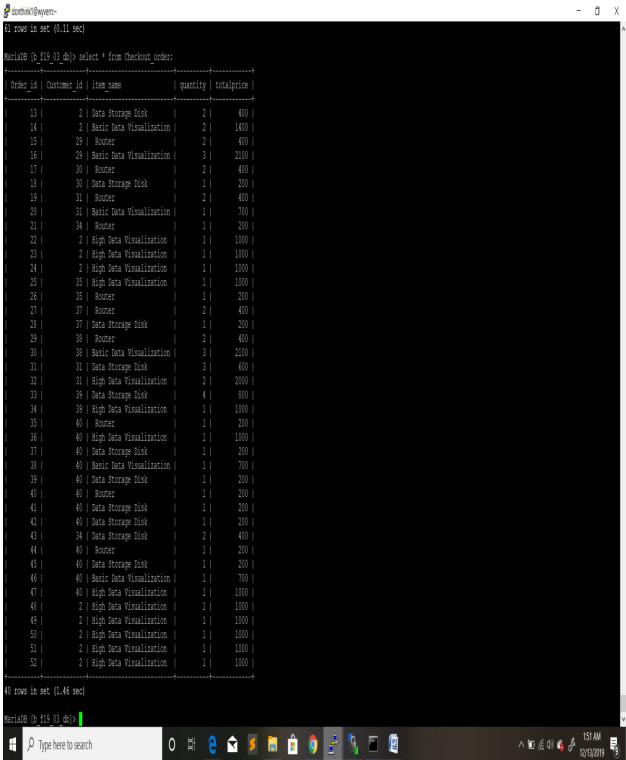
# Customer or company Request for visualization Request successful Data reading to Visualize Request successful Data reading to Data reading to Visualize

c. <u>Data Examples (examples of all data you use in your components, where those data</u> are store: files, variables, database?).

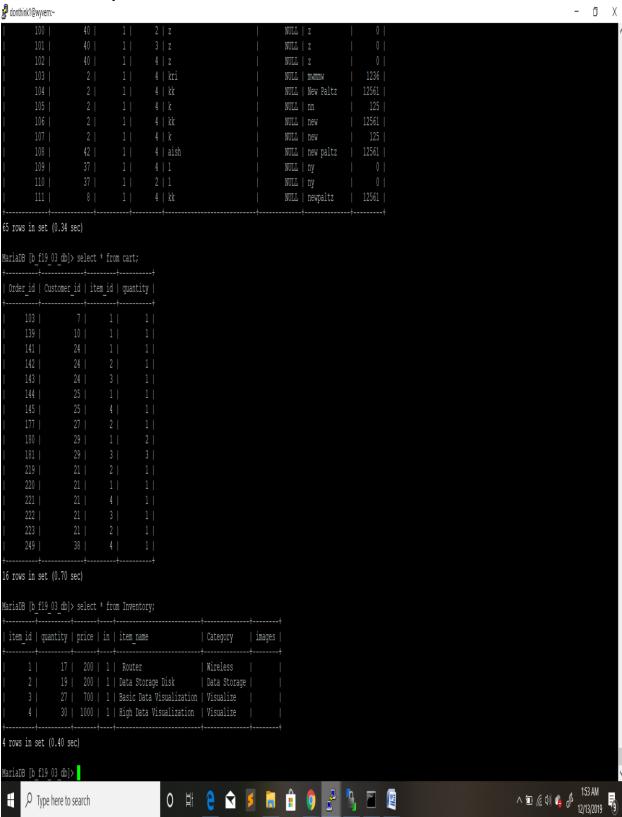
Customer table::-



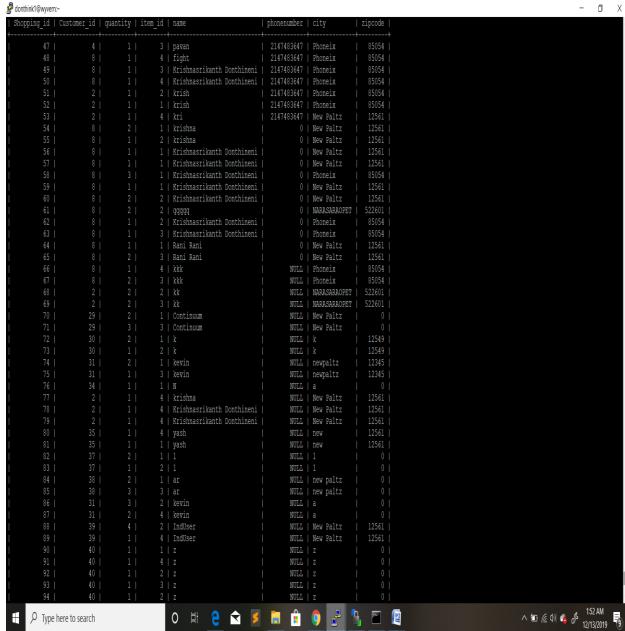
# Checkout\_order::-



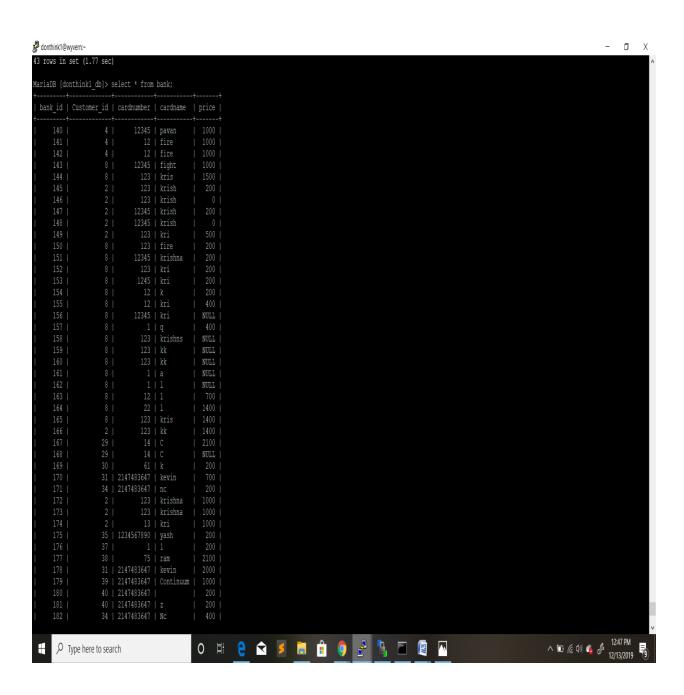
# Cart and Inventory::-



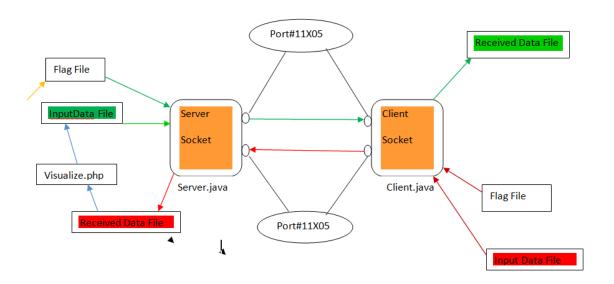
# **Shipping Details**



# Bank Details::-



# d. + If you do the B2B you need to include the architecture, protocols, and request/reply format and the data formats for the B2B part as well



# Request/reply Format:-

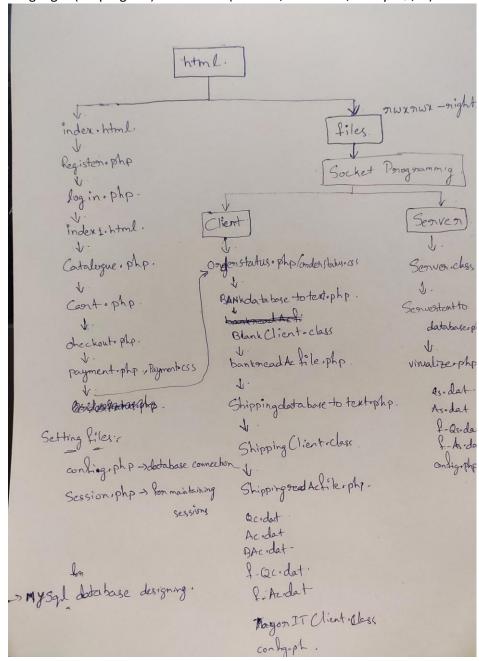
- The Ports to connect IT service-1 is Port1:-11014 (Receiving The data from you)
- Port2 :-11015(Sending The confirmation data from IT-Service)
- The format for the Order/request file is cutomer\_type,item\_name,quantity,total\_price.
- Example:Business,Router,2,200.
- > Data should be separated by , (comma)
- The Status reply format o (Zero)if successful and 1 (one)if it is a failure.
- > By using this data the visualize.php will visualize the data show all the records in good format.

# 3.Implementation

o Web site address of your company:- https://cs.newpaltz.edu/e/b-f19-03/

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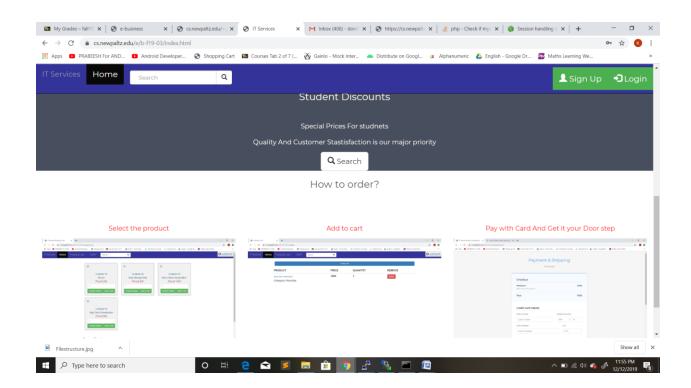
 Map of all subdirectories and files (with real name) in your system. Specify the needed permission code for each of them. If it's a file then also specify in which programming languages (for program) and format (for data, in text file, or MySQL, ...) it is.

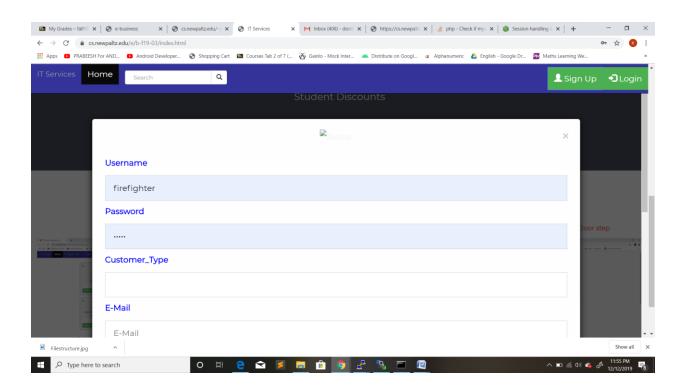


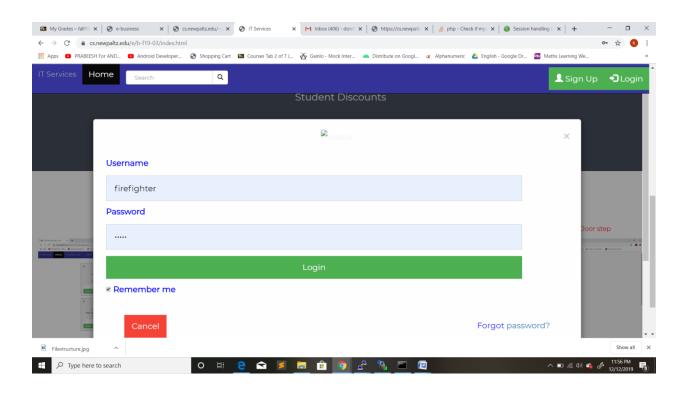
# o Specify which parts/codes you have borrowed or started with (later you modified)?

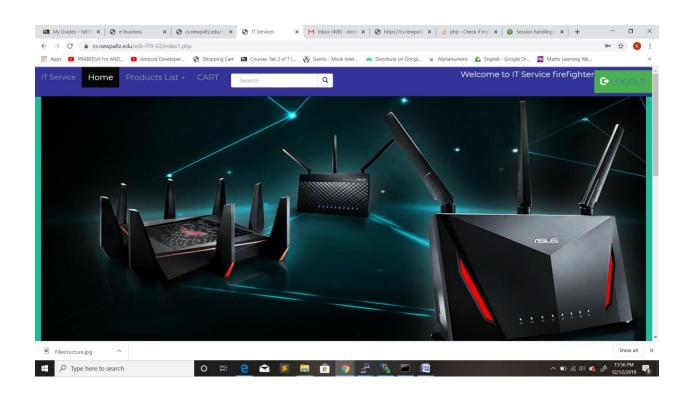
- The primary code I borrowed is the Java Socket Programming Code from the Professor Pham website and then modified to my requirements of B2B.
- Payment.css file from codepen.io and modified into the webstyle.
- Stack overflow helped me a lot in building the project. I borrowed statements for correcting the code while building the website.
- I took help for building sessions in the website.

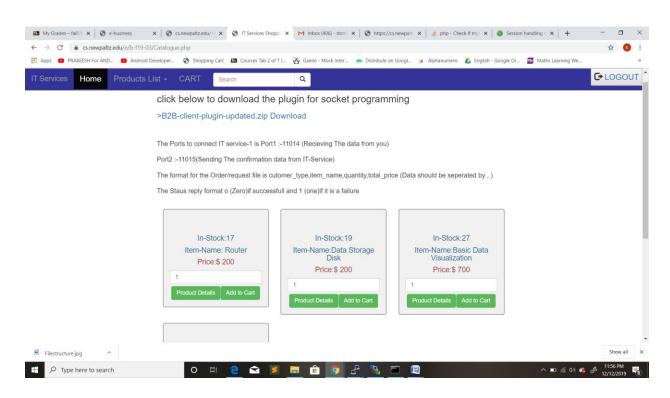
# 4.Demo/Test:-

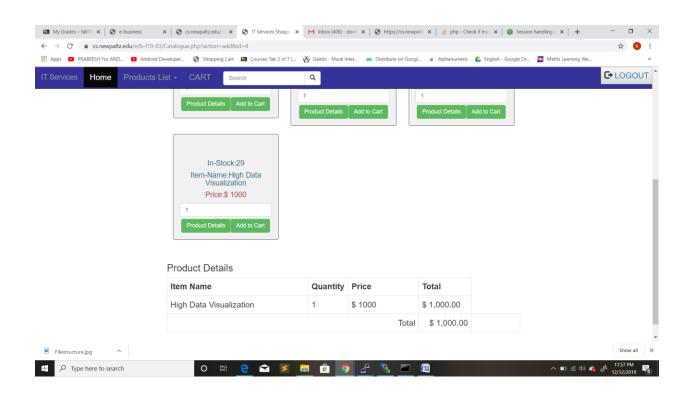


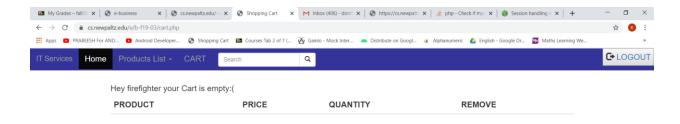




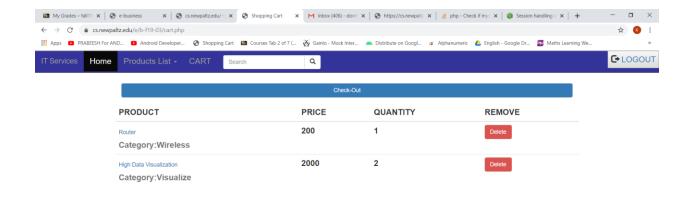




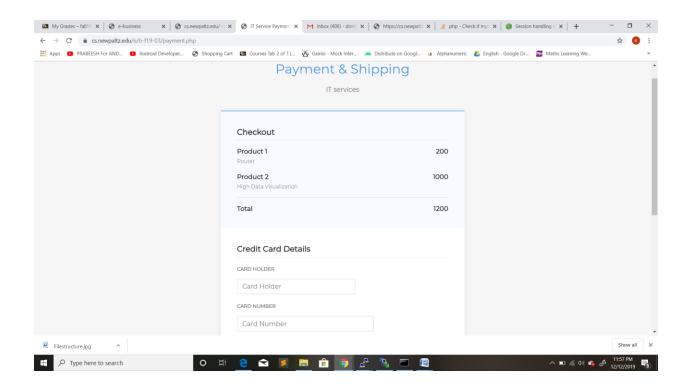


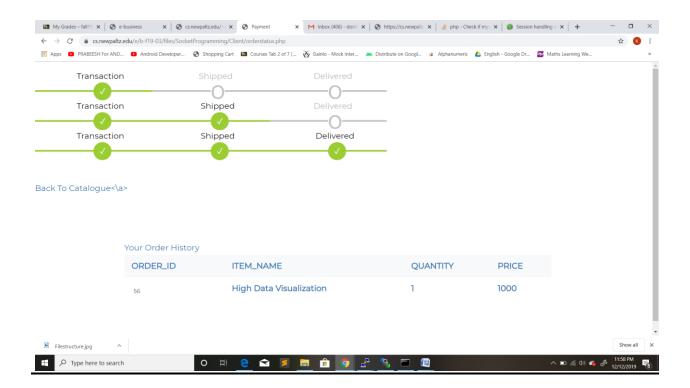












# **5.Developer's Guides** (also put this in README.txt file in your folder)

# How to run/setup your e-business system?

- 1) Go to the link:-https://cs.newpaltz.edu/e/b-f19-03/
- 2) It requires html,css,javascript,php and java running platform.
- 3) authentication code is in login.php
- 4) to register code is in register.php
- 5) catalogue related code is in catalogue.php
- 6) cart related code is in cart.php
- 7) orderstatus code is in orderstatus.php which is in files/SocketProgramming/Client/
- 8) visualize code is in visualize.php which is in files/SocketProgramming/Server/
- 9) There are number of other supporting files related to these main structure files.
- 10) B2B files are located in html/files/SocketProgamming folder

### What (transactions)/When(situations) your system may not work properly?

- Web part of the project works almost everything as expected.
- Shipping method is missing during the shipping input of user. Which can easily corrected if time given.
- The errors will occur in B2B connection.
- It behaves randomly when the B2B customer doesn't follow the data format.
- Sometimes if it fails to connect one of the Bank or ship etc it will just execute normally with the other B2B connections.
- Example: If it fails connecting bank. It won't stop their and it reads old BAc.dat file and continues executing further.

# What needs to be changed if your system (programs & data files) move to a different folder?

- The links of the files needs to be updated.
- If needed the session.php need to be modified.
- The config.php contains database connection information. It needs to be modified and updated with the current database information.

# **6.Challenges**

# <u>List errors (one by one) you have encountered while doing this project (from the beginning, organized by programs/transactions) and how you fixed them?</u>

- First error I encountered and spend almost 4 hours on sessions. Later I learned in the class that https should be used to hold on to the sessions and also looked into the professor .doc file.
- Home page, Login and registrations are smoothly done with very small errors.
- Updating the catalogue and cart are one of the hardest things. Maintaining the 3<sup>rd</sup> normal form in the database. I have written a complicated Sql query to combine Customers, Inventory and Cart tables.
- B2B connections are challenging connecting them is one major part. Reading the data from
  database to text file and text file to database near the server. Reading the Ac.dat file at client
  side and Qs.dat file at the sever side are challenging because we also should read flag files
  before reading them.
- Cross programming language executions are challenging.
- Executing .php file from .java file vice versa .java file from .php file
- Executing .java file from other java program is also challenging. It took almost 3 hours to figure out the solution at this point.
- Any other challenges?
- Having very short time to build the project and at the same time handling other courses ,works is very challenging.

## 7. Conclusions

# What you have learned from doing this project?

- ✓ The most important thing I have learnt from this project is working on servers.
- ✓ Cross programming files execution as stated above.
- ✓ Working on database which is on server side.
- ✓ Working in restricted conditions with limited permissions.

# 8.References/Appendixes

- o Session handling help from:-https://codeforgeek.com/session-handling-php/
- Cart format is taken from:-
- o https://www.webslesson.info/2016/08/simple-php-mysql-shopping-cart.html
- o Payment .css is taken from (source is missing).
- o I have taken and learnt good amount of knowledge from this link:http://cs.newpaltz.edu/~phamh/basics/
- o Stack Overflow website helped me a lot in building this website.