

# Software Tommies Present Z-Neighborhood

December 2016

Archana Sojitra, dorothy lesher, Sai Ratnam Peri, Abdulaziz Alreshidi

# Z-Neighborhood

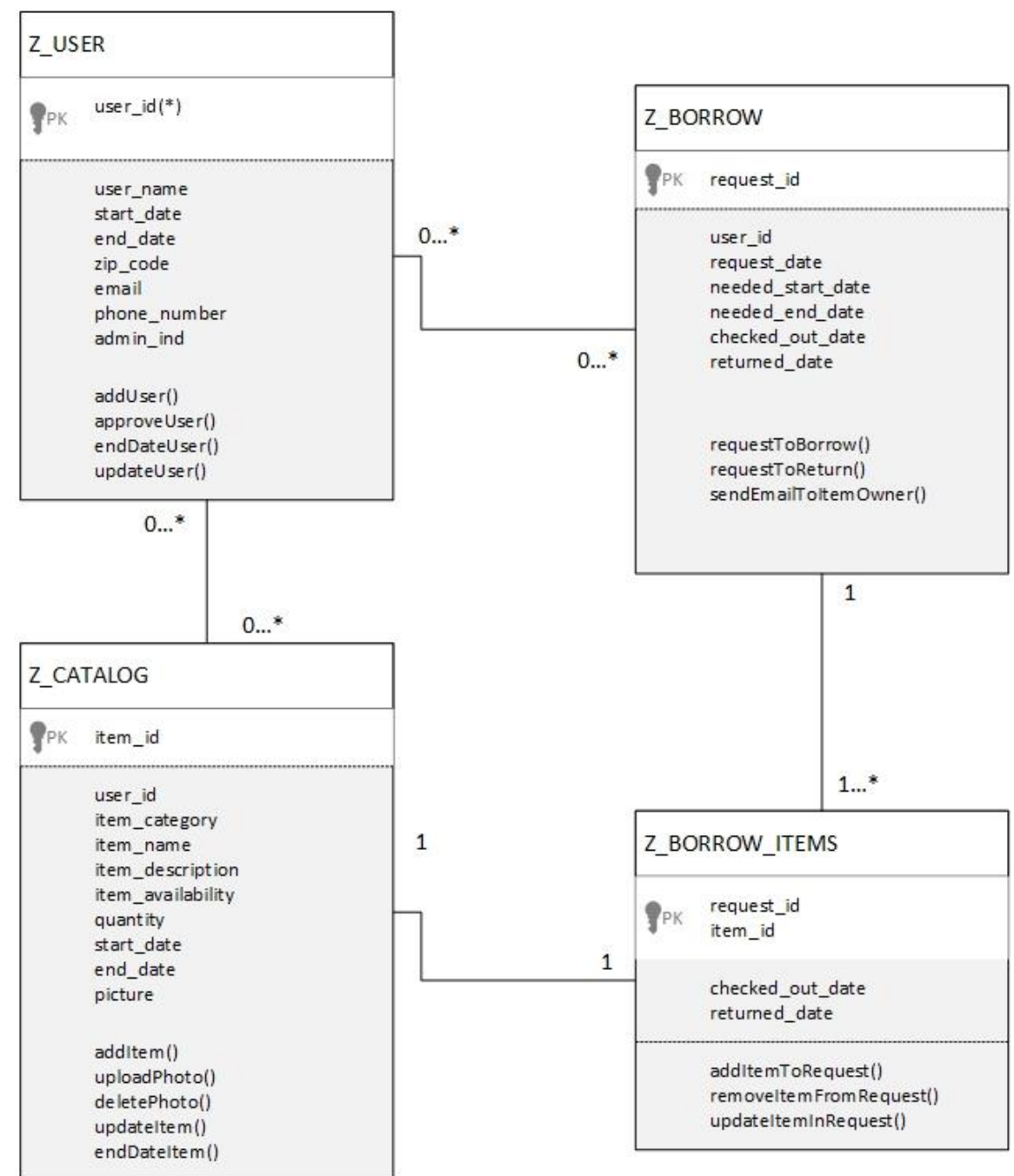
- Have you ever wished you could borrow a ladder, tools, or tables and chair for a party?
- Do you have items that you own, but rarely use, and that you are willing to lend to your neighbors?
- Z-Neighborhood can help to facilitate the sharing of items in your neighborhood!

# Z-Neighborhood Functional Requirements

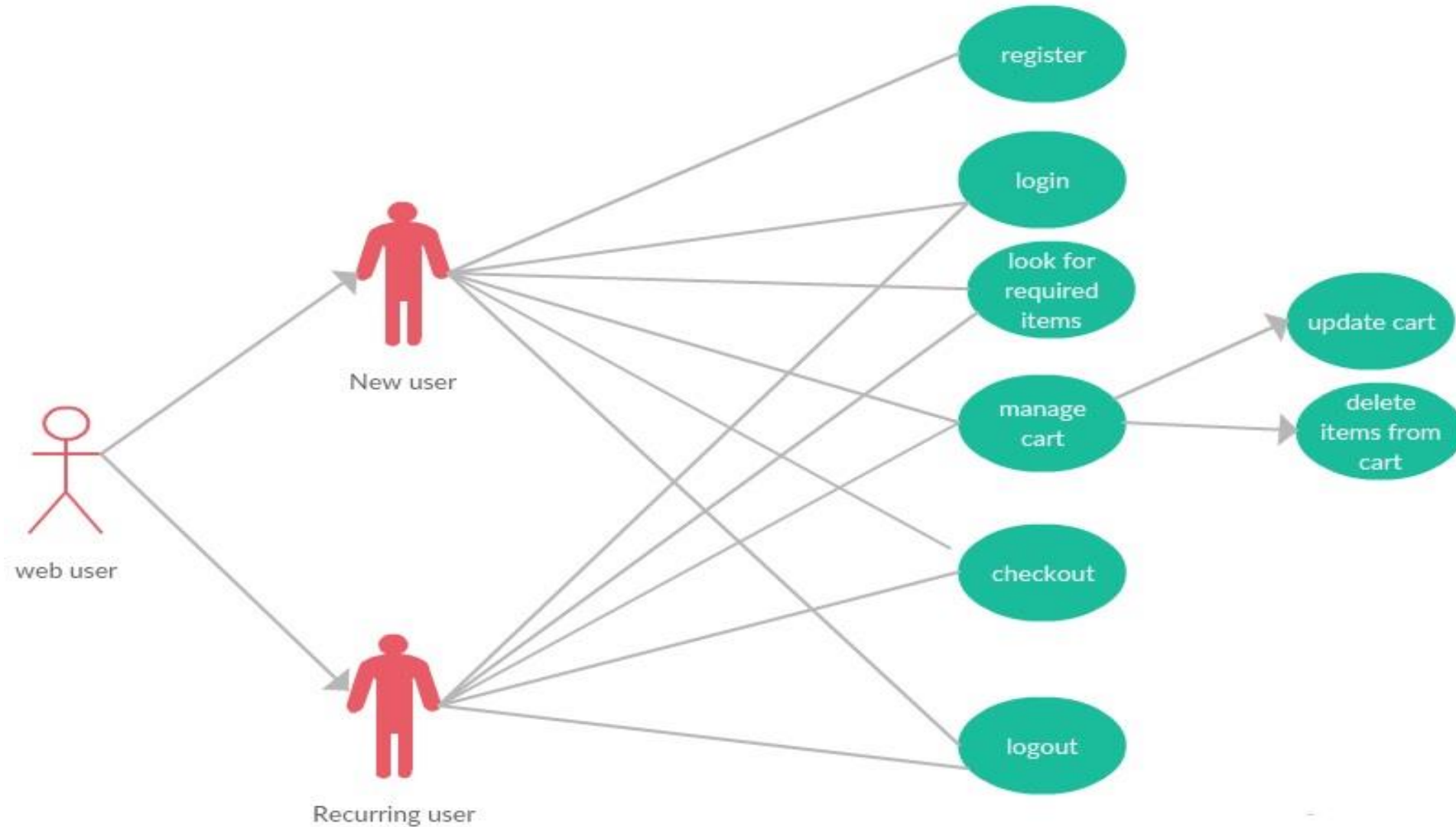
- Users can self register. After creating a new account it will need to be approved by the neighborhood admin.
- "Neighborhood" is determined by user's zip code.
- Users can browse the catalog of items to view items.
- Users can add items to the catalog.
- Users can update items that they own.
- Items in the catalog will contain a description, availability, and the option to upload a photo of the item.
- A borrow request can contain one or more items. If the items are owned by different people separate emails will be sent to coordinate the hand-off and return of the items with the various item owners.
- When an item is checked out the availability is updated to show it is not currently available.
- Item owners will need to update the item after it has been returned to indicate that it is available again.

# Requirements - UML

- Users
  - Neighborhood defined by zip code
  - Approved by admin
  - Contact Information
- Catalog
  - Items that can be borrowed
  - Items owned by a user
  - Item attributes including photo
- Borrow
  - Header information for a request to borrow including dates and who is making the request
- Borrow items
  - Items included in the borrow request

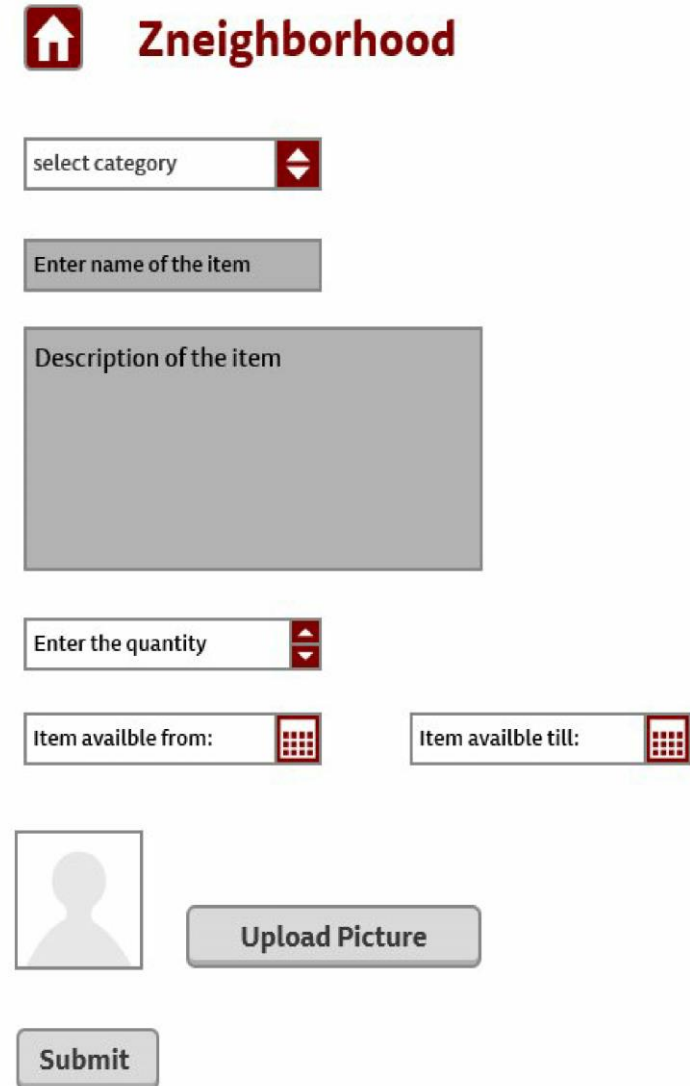


# Requirements - Use Case Diagram





# Sample Screen

## – Adding a New Item




The screenshot shows a mobile application interface for 'Zneighborhood'. At the top, there is a home icon and the app name 'Zneighborhood'. Below this is a 'select category' dropdown menu. The main form consists of several fields: 'Enter name of the item' (a text input), 'Description of the item' (a large text area), 'Enter the quantity' (a numeric input), 'Item available from:' (a date picker), and 'Item available till:' (a date picker). At the bottom, there is a placeholder for a profile picture, an 'Upload Picture' button, and a 'Submit' button.



 **Zneighborhood**



select category 


Enter name of the item

Description of the item

Enter the quantity 

Item available from:  Item available till: 


 



Sample screen for inserting a new item



# Sample Screen

## – Updating an Item

 **Zneighborhood**

Enter the item Id:


Update the available date ☐ yes ☐ No

Available from  Available till 

Update the name of the Item ☐ yes ☐ No

Enter the name of the item

Update the picture of the Item ☐ yes ☐ No



upload

Update the description of the Item ☐ yes ☐ No

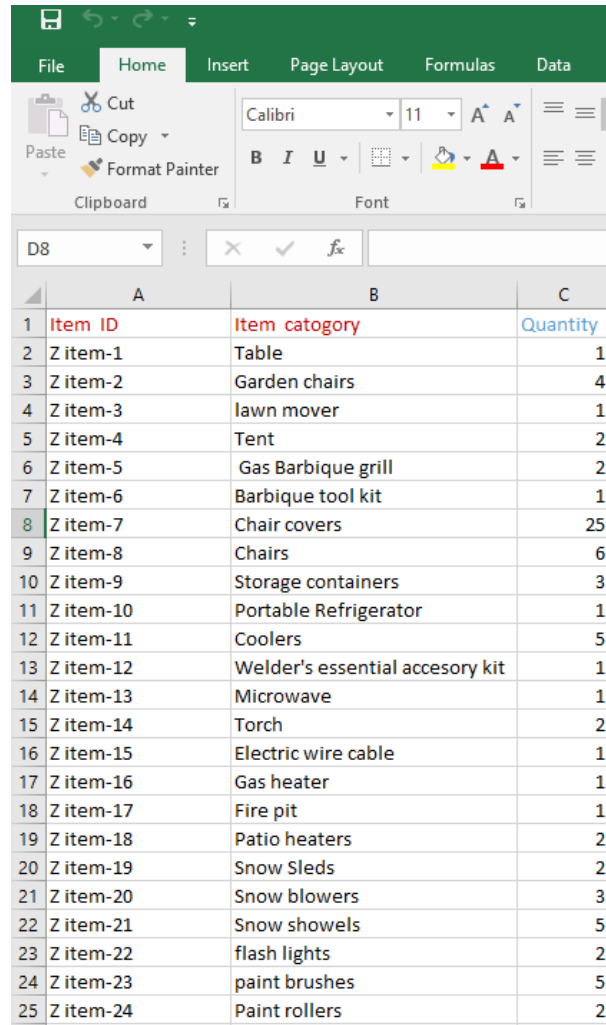
Enter the descripton

Update

Exit

Sample screen for updating the item

# Z item Catalog



	A	B	C
1	Item ID	Item category	Quantity
2	Z item-1	Table	1
3	Z item-2	Garden chairs	4
4	Z item-3	lawn mover	1
5	Z item-4	Tent	2
6	Z item-5	Gas Barbique grill	2
7	Z item-6	Barbique tool kit	1
8	Z item-7	Chair covers	25
9	Z item-8	Chairs	6
10	Z item-9	Storage containers	3
11	Z item-10	Portable Refrigerator	1
12	Z item-11	Coolers	5
13	Z item-12	Welder's essential accesory kit	1
14	Z item-13	Microwave	1
15	Z item-14	Torch	2
16	Z item-15	Electric wire cable	1
17	Z item-16	Gas heater	1
18	Z item-17	Fire pit	1
19	Z item-18	Patio heaters	2
20	Z item-19	Snow Sleds	2
21	Z item-20	Snow blowers	3
22	Z item-21	Snow showels	5
23	Z item-22	flash lights	2
24	Z item-23	paint brushes	5
25	Z item-24	Paint rollers	2

1. Z-item catalog will help user to find their needed item that they want to borrow from list.
2. They can also see the pictures and item quantities.



# Sample Screen for Searching the Catalog

Catalog:


Start date:

End date:

Available: ☐ Yes

Item Name: Roaster Oven, Stainless Steel


Item description: 22-quart portable roaster oven for roasting, baking, cooking, and serving  
Simple control knob with adjustable heat up to 450 degrees F  
Removable insert pan and lid; lift-out wire rack; cool-touch side handles  
Stainless-steel housing; easy-to-clean design; user manual with recipes included  
Measures approximately 18 by 25-2/7 by 11 inches; 1-year limited warranty



Request item

Item Name: Roaster Porcelain Cookwell - Silver Body


Item description: Prepare large holiday meals and side dishes at the same time. Enjoy the benefit of a second oven--wherever and whenever you need it--with this 12-qt convection roaster from Nesco. Take it on the road with you to parties or the homes of friends and relatives.



Request item

Item Name: Electric Roaster Liners for Soup 10 Ct. Package

Item description: Fits 16 Quart, 18 Quart, and 22 Quart Roasters  
Easy Clean up!  
Great For Soup Kitchens and Chili Feeds  
Disposable  
Great For Making Homemade Sauces



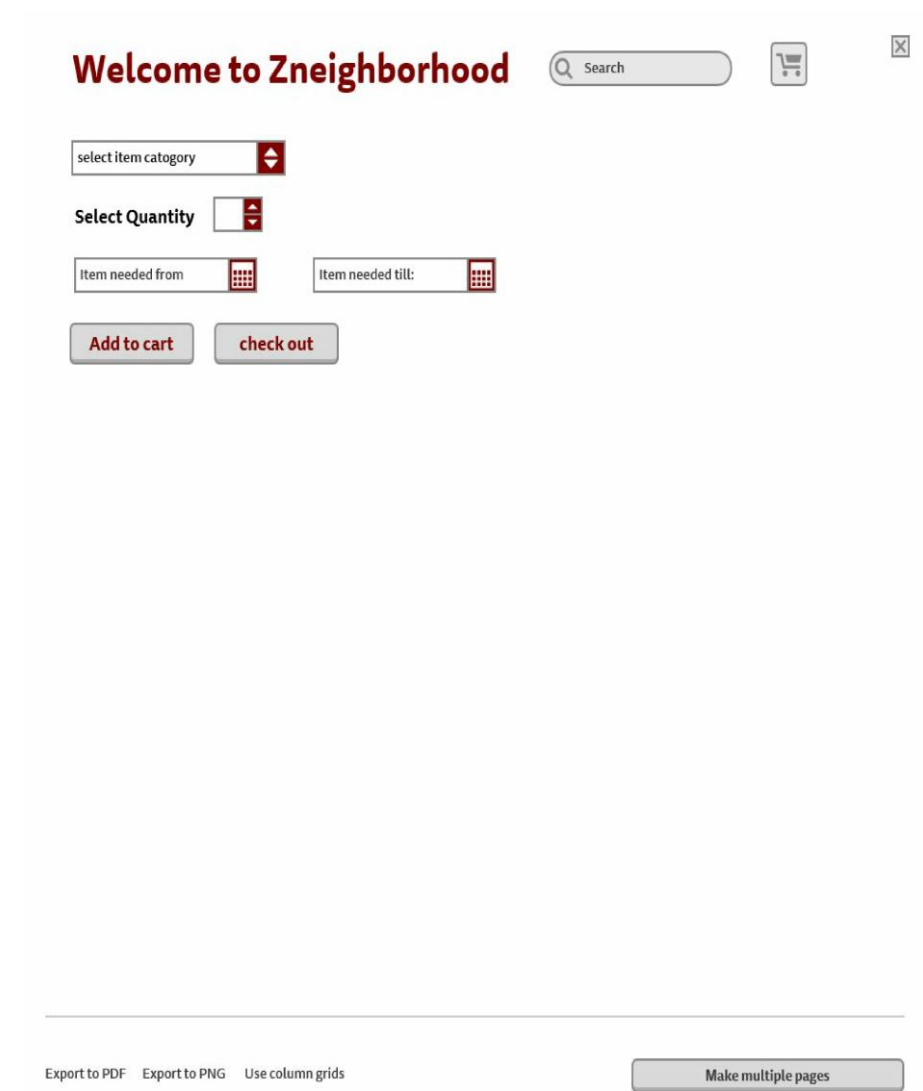
Request item

Export to PDF   Export to PNG   Use column grids

Make multiple pages

A

# Sample Screen – Adding Items to the Cart



The image shows a sample web form titled "Welcome to Zneighborhood". The form includes a search bar with a magnifying glass icon and a shopping cart icon. Below the search bar, there is a dropdown menu labeled "select item category". Underneath the dropdown, there is a "Select Quantity" label followed by a small input field with a red arrow icon. Below this, there are two input fields: "Item needed from" and "Item needed till:", each followed by a red calendar icon. At the bottom of the form, there are two buttons: "Add to cart" and "check out". The form is set against a light gray background with a white border. At the bottom of the page, there is a footer with links for "Export to PDF", "Export to PNG", and "Use column grids", and a button labeled "Make multiple pages".

Welcome to Zneighborhood

Search

select item category

Select Quantity

Item needed from

Item needed till:

Add to cart

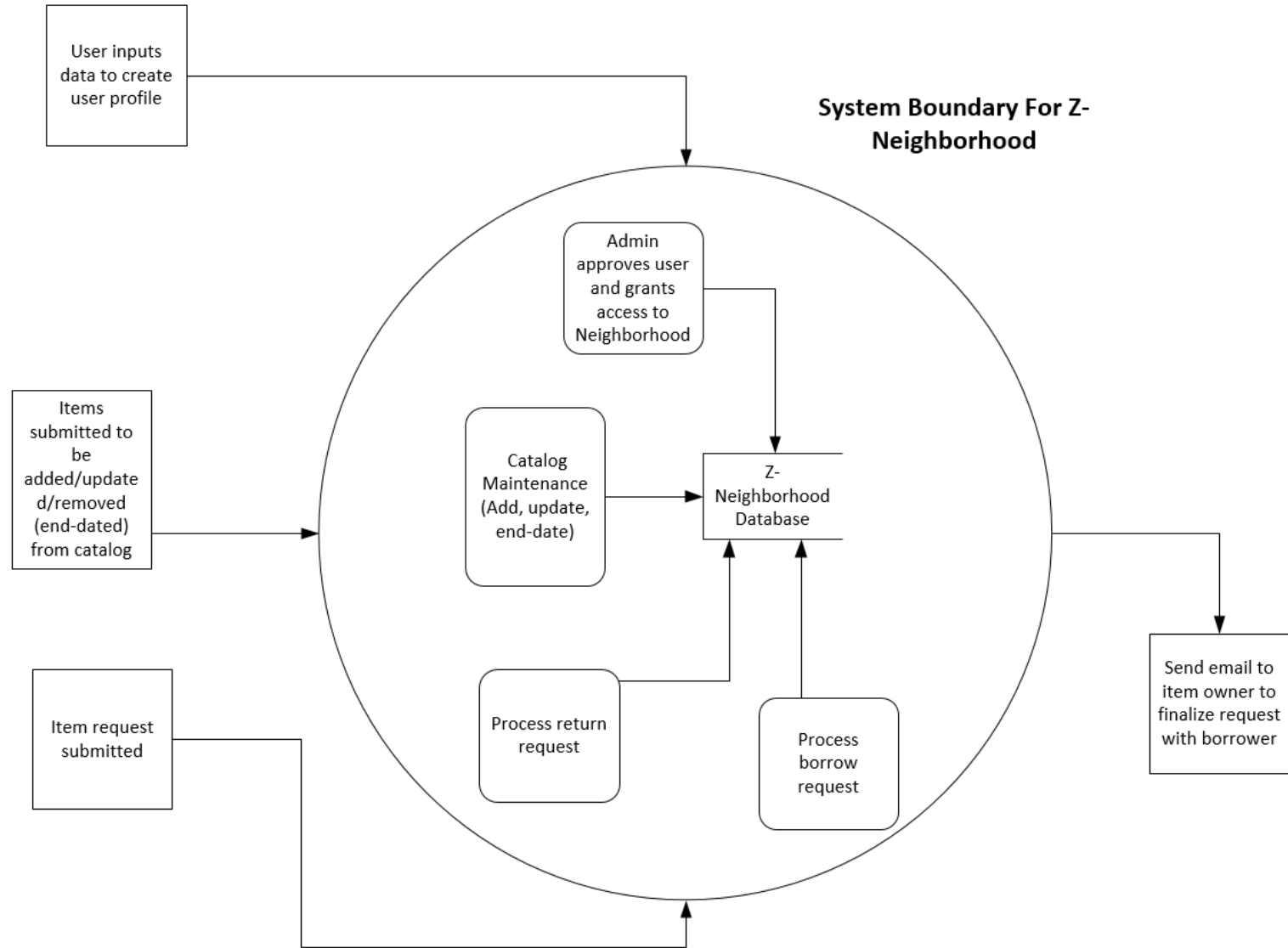
check out

Export to PDF Export to PNG Use column grids

Make multiple pages

Sample screen showing the addition of items to the cart

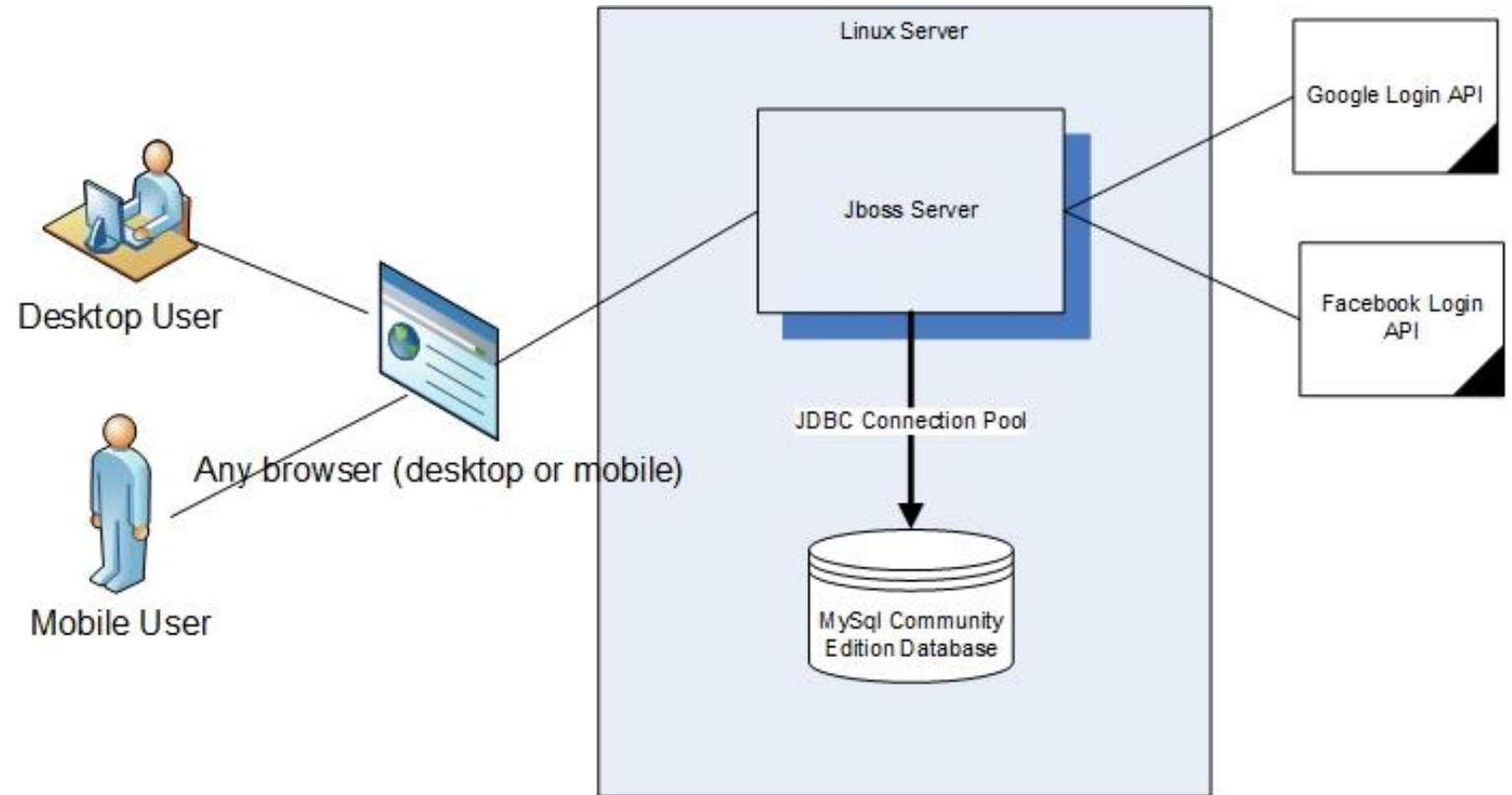
# Data Flow



- Data will be input by the user whether it's creating a new request or adding an item or borrowing an item.
- The application will process the new user request, perform catalog maintenance, and process borrow and return requests
- The application will send emails to item owner's to facilitate the actual arrangement for the loan of the item.

# System Design

- Web-based application.
- Architecture built on open source components.
- Allow options for Google or Facebook logins as well as native login.
- Browser independent. Can be accessed from a desktop computer or any mobile device.
- Application will use HTTPS to provide secure access.



# Project Management Tools Surveyed

Four different types of software project management tools surveyed.

We chose to Microsoft Project 2013 tool because it is free of cost for us because of University of St.Thomas and everyone in our team is familiar to use all feature which make easy to manage our project.

## 1. Smartsheet:

### ***PRONS:***

A) Google app integration- Drive, Calendar and Gmail, Roll up several sheet into master sheet

B)Automate workflow with notification and reminders

***CONS: It is not free \$10/month.***

## 2. Trello:

### ***PRONS:***

A)It is called Kanban.a quick peek at the alignment of cards lets users know how far along a project is and what work needs to be done next and Back of each card has all kind of information

B) Trello also now offers calendar function so everyone can collaborate on their projects transparently.

***CONS: it is missing some key features dose not work with high detail project . This is not a free tool \$45/year.***

### **3.Wrike:**

#### ***PRONS:***

A).The easily customizable dashboards are my favorite feature.

B)We can create several dashboards that allow us to look at workloads from different perspectives: by due date; by team member; tasks completed by day, week and month.

*Cons: It could have better privacy controls on discussions. User can't maintain a single thread on a project that includes both private team messages and messages with collaborators, such as clients. It is not a free tool , price=\$50/month.*

### **4.Microsoft project 2013:**

#### ***PRONS:***

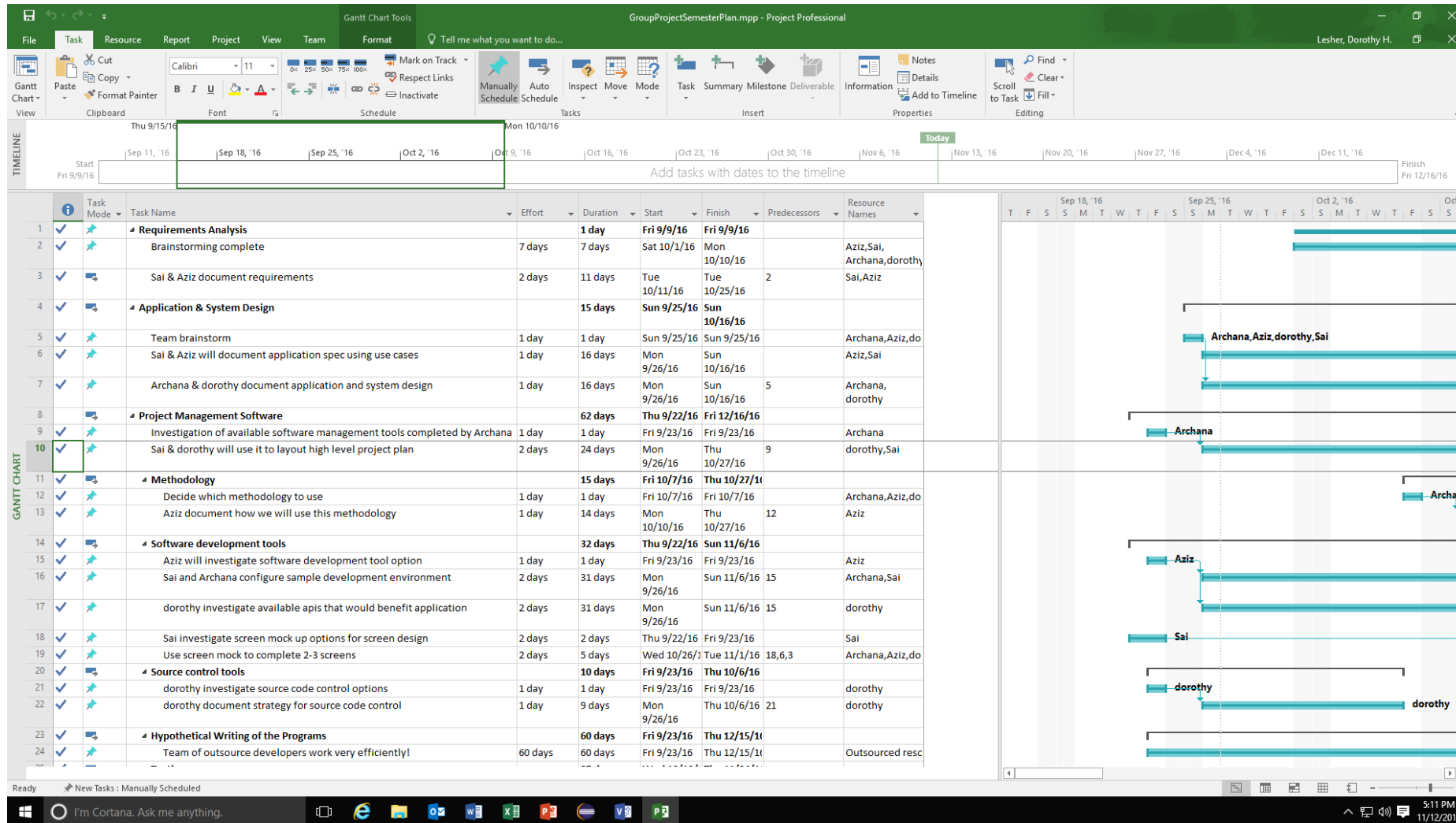
A) Microsoft Project Online is built around Office.

B) Sharepoint task lists into projects, create project workflow designs in Visio, search through Office 365 and Sharepoint data from projects, and visualize project data using Excel Services.

C) Project Online also integrates with Active Directory, to integrate it with the existing device and user management.

D) User can organize projects with tasks and milestones, and view them in detailed Gantt charts.Users can Skype for Business calls .

# Project Plan



# Microsoft project 2013

## Features:

Task Management

Resource Management

Gantt Charts

Scheduling

Workflow Automation

Team Collaboration

Support all types project Methodologies

Document Management

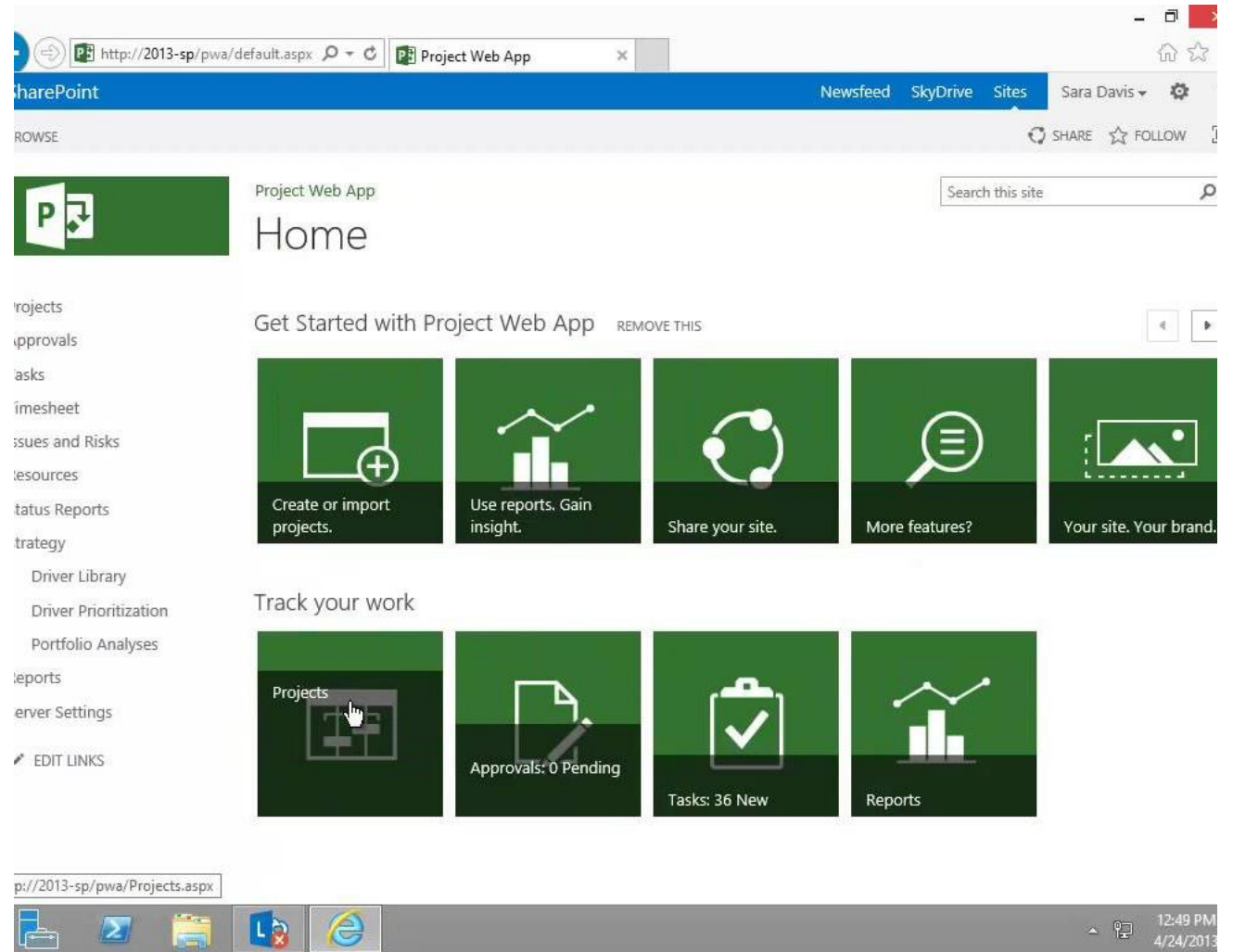
Email integration

Mobile Access

Timesheet Tracking

Change request and Case Management

Budget and Expense Management

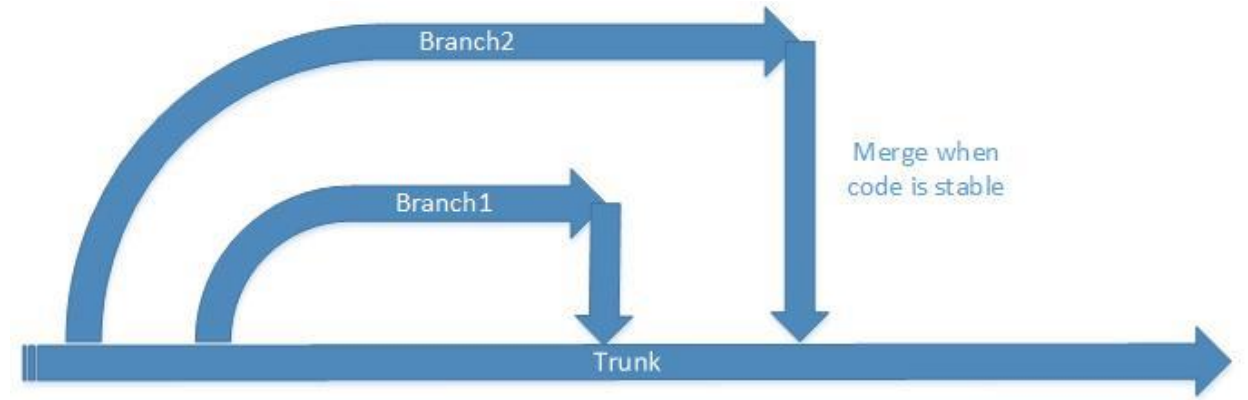




# Project Management Methodology

- Why we choice waterfall methodology ?
- Why Most software product developed in the waterfall methodology?
- Our project phases :
  1. Requirements Analysis
  2. Application & System Design
  3. Project Management Software
  4. Methodology
  5. Software development tools
  6. Source control tools
  7. Testing
  8. Implementation plan

# Source Code Control



- Subversion

- We chose to use Subversion as our source code control repository.
- We followed a stable trunk methodology, where development is completed on a branch. After the code is tested it will be merged back to the trunk.
- All tested and verified code will be accessible on the trunk.
- In process code will be in various branches during the development process. Every branch will be created from the trunk to start with our common structure.
- Subversion requires a repository to be hosted on a server. Ours is hosted by our hypothetical data center.

- OneDrive

- A shared drive served as our documentation repository for the project.

# Project Development Tools

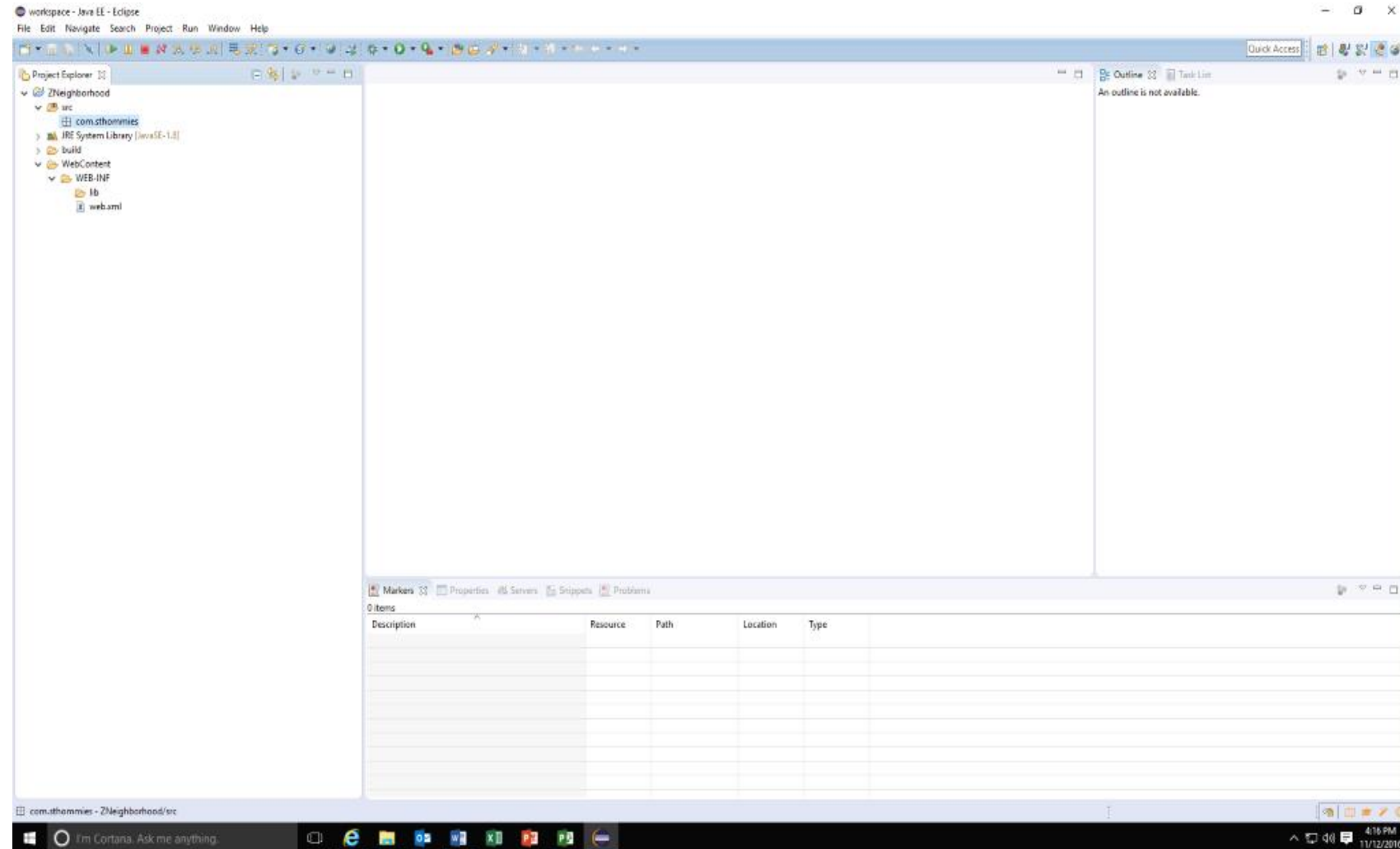
- 1- Eclipse IDE:

As coding developers eclipse has a wide feature of open source tools which helps developer to have more efficiency and effectivity when you write the code eclipse helps you to find the error by highlighting no need to recompile project. Also, code assist.

- 2- Java

- 3- Eclipse IDE for java EE developers

This package will create the framework for java EE web project.



# Google and Facebook Login

- Facebook provides a JavaScript SDK which makes it easy to include an option for users to utilize their Facebook account to authenticate.
- Google also provides a JavaScript library, the Google Platform Library, which can be included in your application to authenticate using their Google credentials.
- If a user chooses either of these authentication methods, they will still be required to complete a Z-Neighborhood profile which will include their zip code, email address, and contact information

# Reflection

- It's really helpful to use a screen mock-up tool.
  - Quickly plan what screens will look like and what we might be missing
  - Does not require any programming.
- It was helpful to walk through the various steps for creating a software engineering project even if we did not implement the application.
- We were exposed to lots of new tools.
- Our group worked well together!

# Questions?