Professional Abilities Association of America

CECS 493A:
Database Web Application Project I

The Development Team

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Overview: Background

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❖ Mary Zendejas founder of the PAA of A
❖ Professional Abilities Association of America
  ➢ Provide ongoing support to people with disabilities
  ➢ Assist people with disabilities join the workforce
  ➢ Provide mentoring for others

Goals

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- ❖ Create a professional community for people with disabilities
- ❖ Provide a job market
- ❖ Advertise networking events
- ❖ Promote the PAA of A

What's our project?

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❖ The Professional Abilities Association of America Website
  ➢ paaofa.org
  ➢ Created through WordPress
❖ Functionalities
  ➢ Calendar
  ➢ Voice Reader
  ➢ Forum
  ➢ Donations
  ➢ Social Media

Development

❖ Process
  ➢ Requirements Specification
  ➢ Design Specification
  ➢ Test Specification
  ➢ Implementation
  ➢ User/Developer Specification

GUIDELINES

Requirements Specification

How the customer explained it

How the program leader understood it

How the engineer designed it

How the programmer wrote it
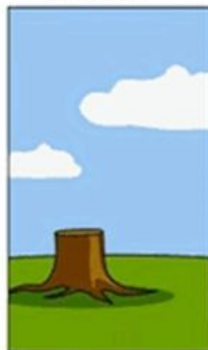
How the sales executive described it

How the program was documented

What operations installed

How the customer was billed

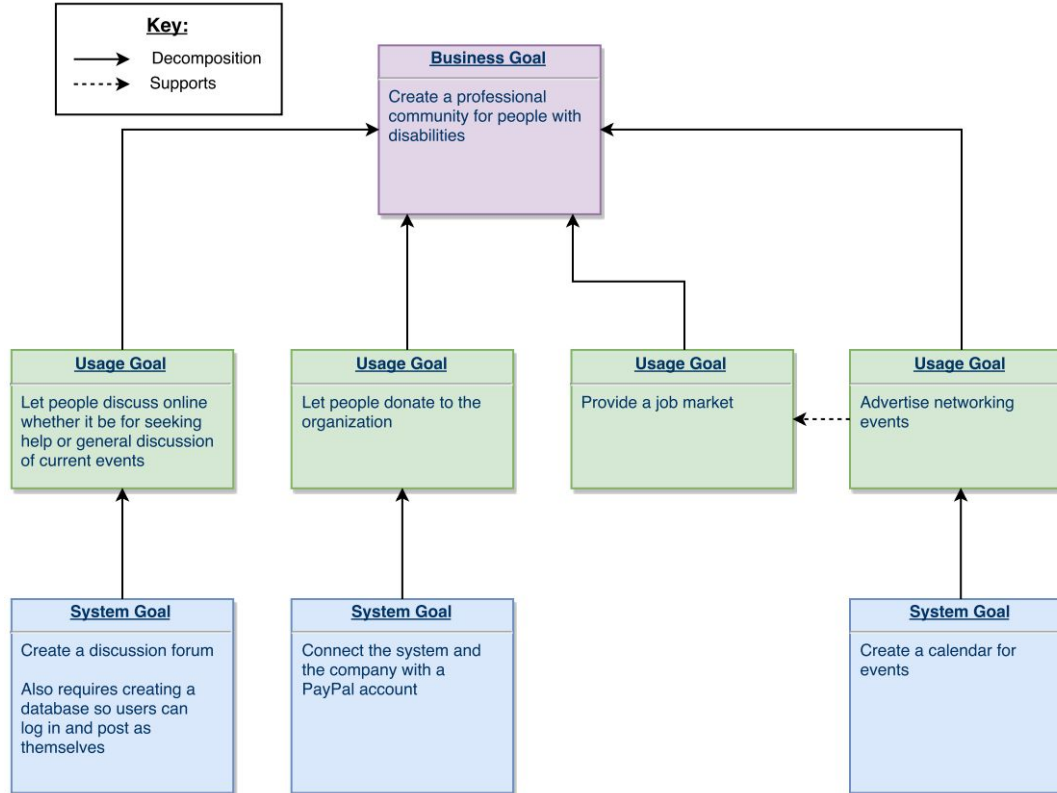How the helpdesk supported it

What the customer really needed
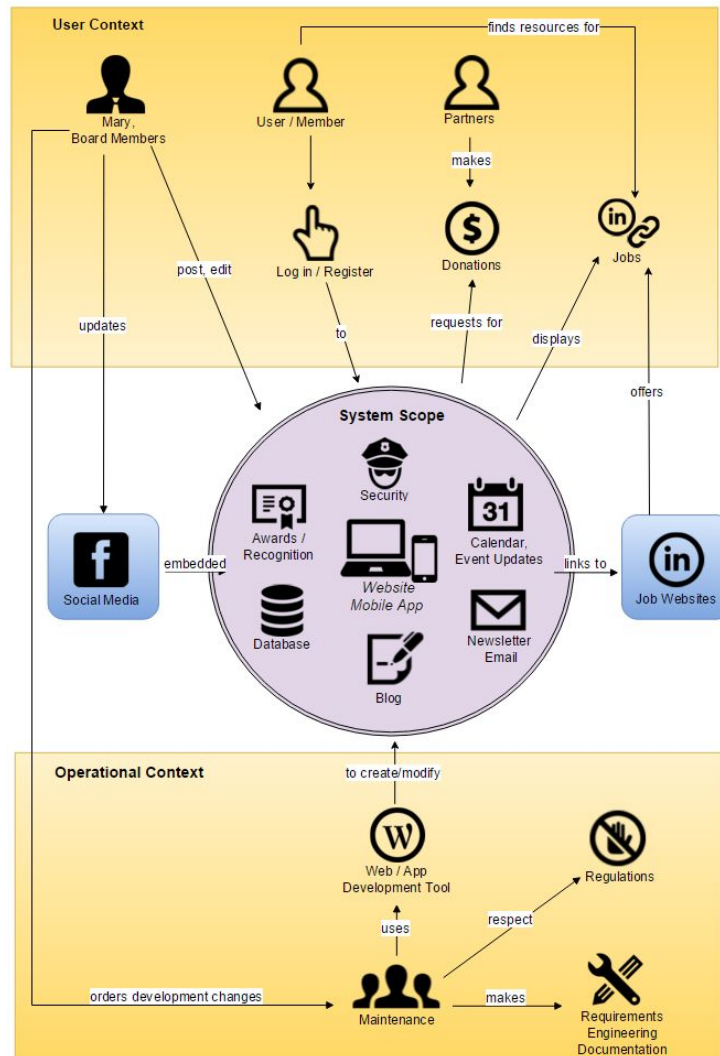
Requirements Specification: What do we want?

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❖ Official document to recognize all requirements
  ➢ For the stakeholders as well as the developers
❖ Requires multiple meetings with the stakeholder to
  determine and finalize:
  ➢ List of stakeholders
  ➢ Goals of the project
  ➢ Constraints
  ➢ Quality requirements
  ➢ Possible use cases
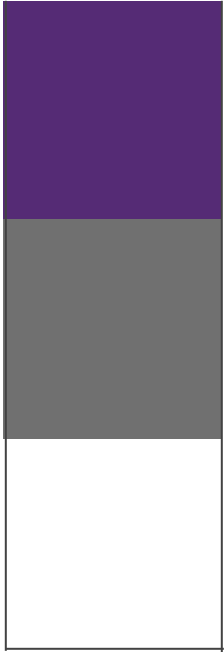❖ Requirements should be written in this doc
  upheld

Business Goal Model

Key:
- → Decomposition
- ⇢ Supports

Business Goal
Create a professional community for people with disabilities

Usage Goal
Let people discuss online whether it be for seeking help or general discussion of current events

Usage Goal
Let people donate to the organization

Usage Goal
Provide a job market

Usage Goal
Advertise networking events

System Goal
Create a discussion forum

Also requires creating a database so users can log in and post as themselves

System Goal
Connect the system and the company with a PayPal account

System Goal
Create a calendar for events

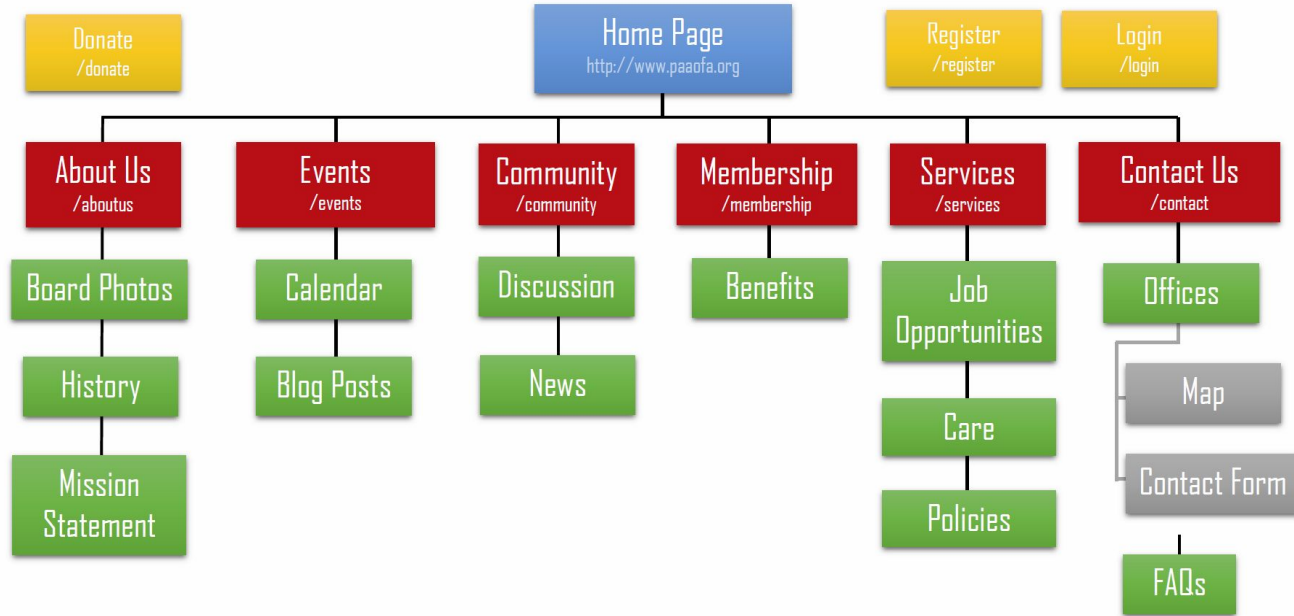# System Vision

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Design

Design: How will it look?

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❖ Professional
❖ Easy to Navigate
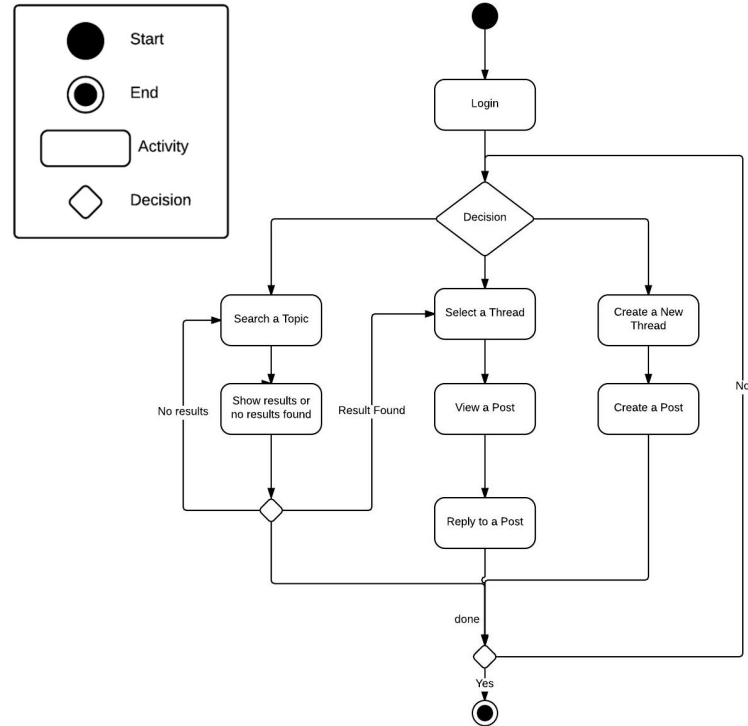❖ Appealing
❖ Organized
❖ Efficient

Design: Sitemap
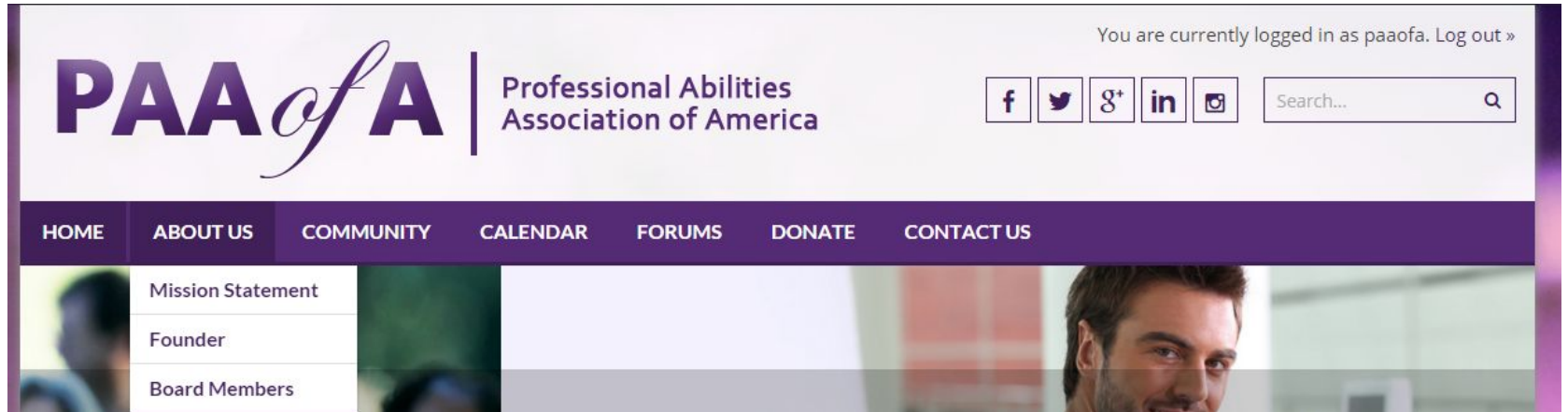
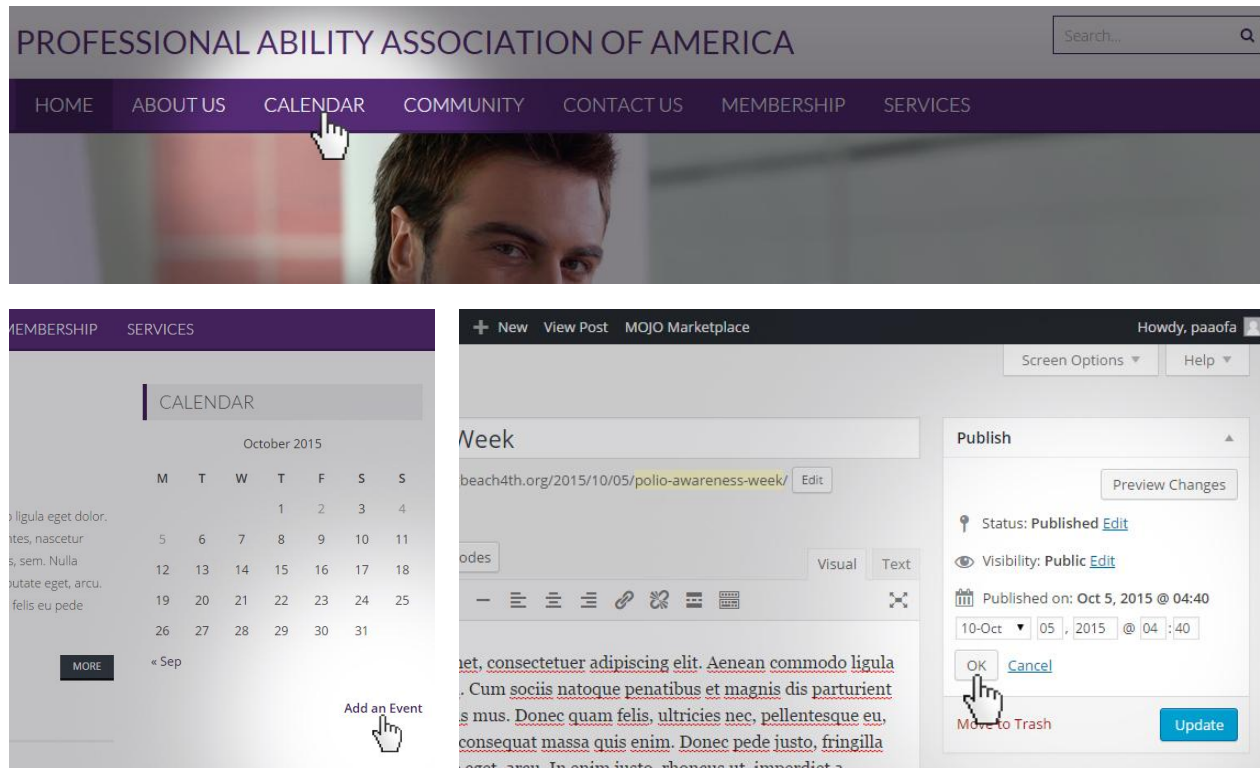- - -

Design: Sitemap Revised

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Design

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Legend:
- ● Start
- ◉ End
- ▭ Activity
- ◇ Decision

Login → Decision

Decision branches to:
- Search a Topic → Show results or no results found
- Select a Thread → View a Post → Reply to a Post
- Create a New Thread → Create a Post

No results / Result Found

done

No / Yes

Design: Horizontal Prototype

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Design: Vertical Prototype

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❖ Adding a Calendar Event

Test Specification

Test Specification: Does it do everything it's supposed to?

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❖ Written before development (Implementation)
❖ It is a series of test cases to test different website features described in the **Requirements Specification**
❖ **ISO 25010** standard used as guideline
  ➢ Product quality model

Test Specification: ISO 25010 Standard

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Product Quality Model Figure

Test Specification: How we designed

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ID	TEST 4
Quality Characteristic	Usability
Description	The test will be performed on PAA of A website by users who understands the basic knowledge of web browsing but are not involved in the development of PAA of A website. Purpose of this is to test the site's usability, that is, how easily an user can use the website for their needs.
Requirements Reference	Usage Model
Testing Level	Acceptance

Test Specification: How we designed

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Steps	Test will be performed for three different use case scenarios described in the Requirements Specification. 1. User is given a specific use case scenario to perform 2. User is navigated to PAA of A website's top page 3. User walks through the website to accomplish their specific use case scenario inside the website without any assistance 4. The test will be completed when the user finishes doing what they have to successfully or is totally lost and requires help.
Expected Outcome	User successfully performs the given use case scenario

Test Specification: How we designed

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Actual Outcome	The user testing the usability managed to complete the task without any struggle navigating through the website.
Pass / Fail	Pass
Defect	None

Implementation

Implementation: How we put it together

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❖ Our guide for development:
  ➢ Requirement Specification
  ➢ Design
  ➢ Test Specification
❖ Implemented to satisfy the needs listed in specification

Implementation: What we used to develop our website
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WordPress.com

❖ For website development
❖ All works are done through WordPress
  ➢ create/edit pages
  ➢ features like donate

GoDaddy

❖ For Domain and Hosting
❖ All files associated with our website is stored here

User / Developer Specification

Documentation: Keeping track of what we've done

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- Documentation is a key step in the software engineering and developing process.
- Documentation helps both developers and users understand features of the project.
- Step-by-step help for specific tasks.

User Documentation

- Describes the functionality of the PAA of A website from the user perspective.
- Give users explanations on how features work and steps to take.
- Explains common mistakes taken and ways to fix them.

User Documentation – Example

Log in to your account

After you registered as a member of PAA of A, you can log in to your account by clicking on "Log In" located right next to the "Register Here" option at the top right corner of the website.

When the "Log In" option is clicked, a log in form just like in the image at the right will pop up. Fill in the user name and password you have provided when you registered and click on the LOG IN button at the bottom to proceed. If the log in was successful, it will lead you back to the first page.

If the log in was unsuccessful, it will show an error message like below.

Login

ERROR: All fields are required.

Login

Username

Password

☐ Remember Me   LOG IN   CANCEL

Lost your password?

Developer Documentation

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- Documentation for the developers and maintainers of the website
- Since our group will not be maintaining the website, we have created in-depth documentation for some features of the website and how to edit them.
- Since Wordpress was used, the majority of the documentation is geared toward use of Wordpress tools.
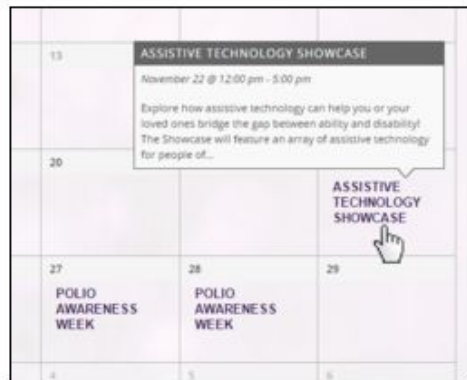
Developer Documentation Example

Editing an Event in the Calendar

1. Making corrections or adding additional information to an event is easy. While viewing the Calendar, simply click on the event that needs to be edited.

   The event will open, showing all the details of the event.

2. In the admin bar at the top of the page, click 'Edit Event'. (Again, you must be an Administrator to view the admin bar.)

Developer Documentation Example - 2

3. Make necessary changes to the event post and click 'Update' on the Publish pane on the right of the screen when done.

LIVE DEMO
www.paaofa.org

Conclusion

Future Enhancements

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Handheld Applications

- iPhone App
- Android App

Increase Web Traffic / User Database

- Social Media
- Advertisements
- Event postings

Any Questions?