Copiosis

TEAM E

Product Overview

The Copiosis project needs us to create a scalable web application, which will, at first, be used by participants of the "Kenton Project". Copiosis attempts to explore alternatives to a money based economy, in which "doing good in your community" results in the ability to obtain luxuries. The software we will be developing will serve as the main mechanism for participants to interact with each other via one on one transactions that result in Net Benefit Reward.

User Base and Characteristics

- User Base
  - Participants of the Kenton Project
  - Participants will be able to sign up for the application if they have a token supplied by the Payer Organization.
- User Characteristics
  - Kenton Project Users
    - Non-technical users
  - Payer Organization Administrators
    - Non-technical for the most part

Features Overview

- Login & Signup - Manage User Access
    - People participating in the trial are allowed to signup and login, but not the general public
    - Users login with username and password
    - A unique ID is assigned to each Copiosis user

Features Overview

- Display - Transactions Involving User
  - Highlighting of new transaction activity
  - Pending user input
    - Displays details entered by 2nd party
    - Not editable
    - Confirm or Reject transaction
  - Pending 2nd party input
    - Displays details entered by user
    - No interactions other than view
  - Completed
    - Can review past transactions

Features Overview

- Add - Transactions Between Users
  - Producer Form
    - Allows people who provide products or services to record transactions they did for someone.
  - Consumer Form
    - Allows people who received a product or service to record what was done for them.
    - Includes a satisfaction rating

Features Overview

- Item Management - Products and Services
  - Add Product/Service
    - Name
    - Gateway
    - Can optionally select an item's class
  - Edit Product/Service
  - Delete Product/Service (deactivates)

Features Overview

- Payer Management - Item Class Assignment
  - Create item class
  - Edit item class
  - Deactivate item class
  - View items in the system without a class so one can be assigned

Features Overview

- NBR Calculations - Manage Net Benefit Reward
  - Store variables for calculations per product/service
  - Calculate NBR changes from transactions
  - Notify user of NBR adjustments
  - Display total NBR for user to see.

Development Process

- Agile Methodology
  - 1-2 week sprints
  - Weekly team meetings
  - Sponsor meetings twice a month
- General Process
  - QA rolled into the sprint
    - Tested first by developers and then turned over to QA
  - Parallel development where possible
  - Frontend and backend development teams
- Deployment
  - Server in capstone lab

Development Logistics

- Server and Development environment:
  - Capstone lab server running
    - OS: Windows Server 2012 R2
    - Web Server: IIS
    - Database: SQL Server Express
  - Dev Environment
    - IDE: Microsoft Visual Studio
    - Languages: C#, HTML, JavaScript, SQL
    - Framework: .NET MVC

Member Roles and Responsibilities

Roles	Responsibilities	Members
Project Manager	Oversees all general tasks and ensures all deadlines are being met	Kyle
Point of Contact	Keeps contact with sponsors giving and receiving information when necessary	Kyle
Dev Ops	Handles all server side software installation, configuration and maintenance	Sean and Donovan
UX Developers	Designs and implements all of the front end user interface	Emerald, Sean, and Tyler
Database/Backend Developers	Designs and implements both the database schema and application logic	Josiah, Michael, and Donovan
Quality Assurance	Assists with unit testing and performs integration testing of the application	*Everyone*

Deliverables

- Database scripts to create Copiosis backend
- Functional web application meeting MVP
- Source Code and Documentation provided via GitHub

Possible Issues/Contingency Plans

	RISK	PROBABILITY	COST	IMPACT	MITIGATION
1	Team member drops out	Moderate	Moderate	The project is delayed	Major tasks are assigned to two members working together for redundancy
2	Team leader drops out	Low	High	Project likely not completed in time	Other members need to understudy/fill role of project leader
3	Sponsor drops out	Low	High	Loss of feedback; work on project amounts to nothing	Nothing we can do to mitigate this, but keeping in constant contact with them
4	Lost documents	Moderate	High	Loss of few minutes to several hours of work	Backup documents on the repository

Tentative Schedule

- Phase 0 -- Complete project plan presentation
  - Complete: (11/24/14)
- Phase 1 -- Setup development environments
  - Complete: (12/08/14)
    - Setup windows development environments on personal machines
    - Setup capstone server to run web server and sql server
- Phase 2 -- Setup project management and source control
  - Complete: (12/12/14)
    - Enroll everyone in Pivotal Tracker software
    - Create initial iterations based on sponsor requirements
    - Setup GitHub repository

Tentative Schedule

- Phase 3 -- Database schema design and implementation
  - Complete: (12/19/14)
    - Design database schema
    - Script database schema creation
- Phase 4 -- Skeleton web application prototype
  - Complete: (01/09/14)
    - Token protection for user creation
    - User login enabled
    - Initial pages created with basic markup

Tentative Schedule

- Phase 5 -- User and item creation
  - Complete: (01/19/14)
    - User creation via sign up
    - Item management
      - Creation / Editing / Removing
- Phase 6 -- Transaction creation and overview
  - Complete: (01/19/14)
    - Transaction creation
      - Producer --> Consumer and Consumer --> Producer
    - Transaction Overview
      - View pending, completed, and rejected transactions

Tentative Schedule

- Phase 7 -- Transaction confirmation
  - Complete: (01/26/14)
    - Consumers confirm transaction
      - Producer receives NBR based on algorithm
      - Consumer receives participation NBR
- Phase 8 -- Management backend for item classification and editing user item classifications
  - Complete: (02/02/14)
- Phase 9 -- Documentation and Final Deliverables
  - Complete: (02/16/14)