CSC 4350: Software Engineering

Fall 2016 Semester

October 16, 2016

Document #4 – Object Design

Team Name: Real Team 6

Application Name: Booki

Team 6 Members:

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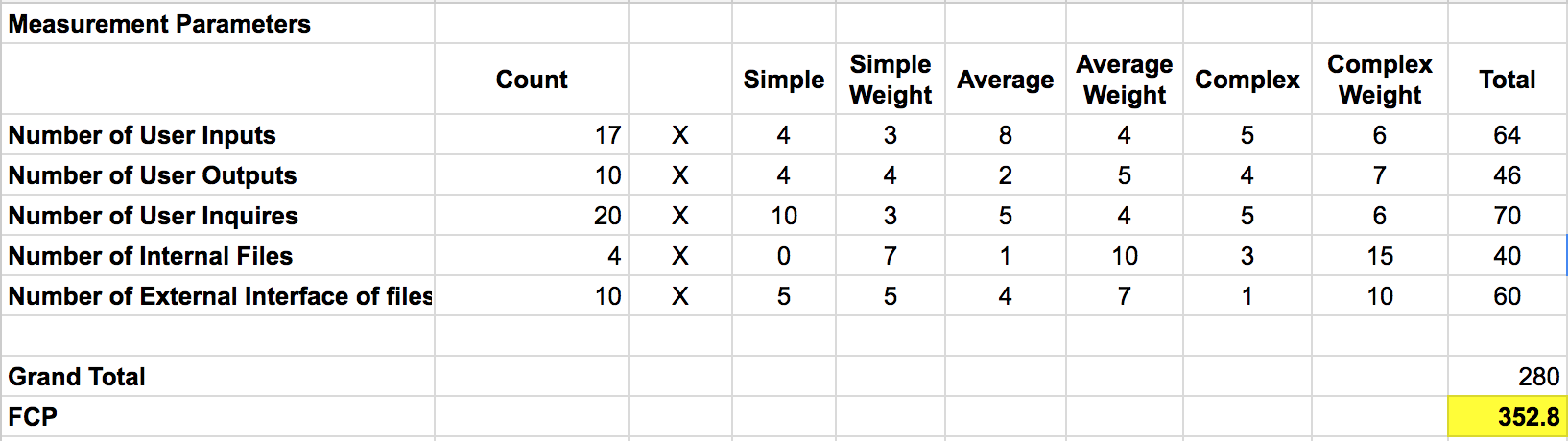
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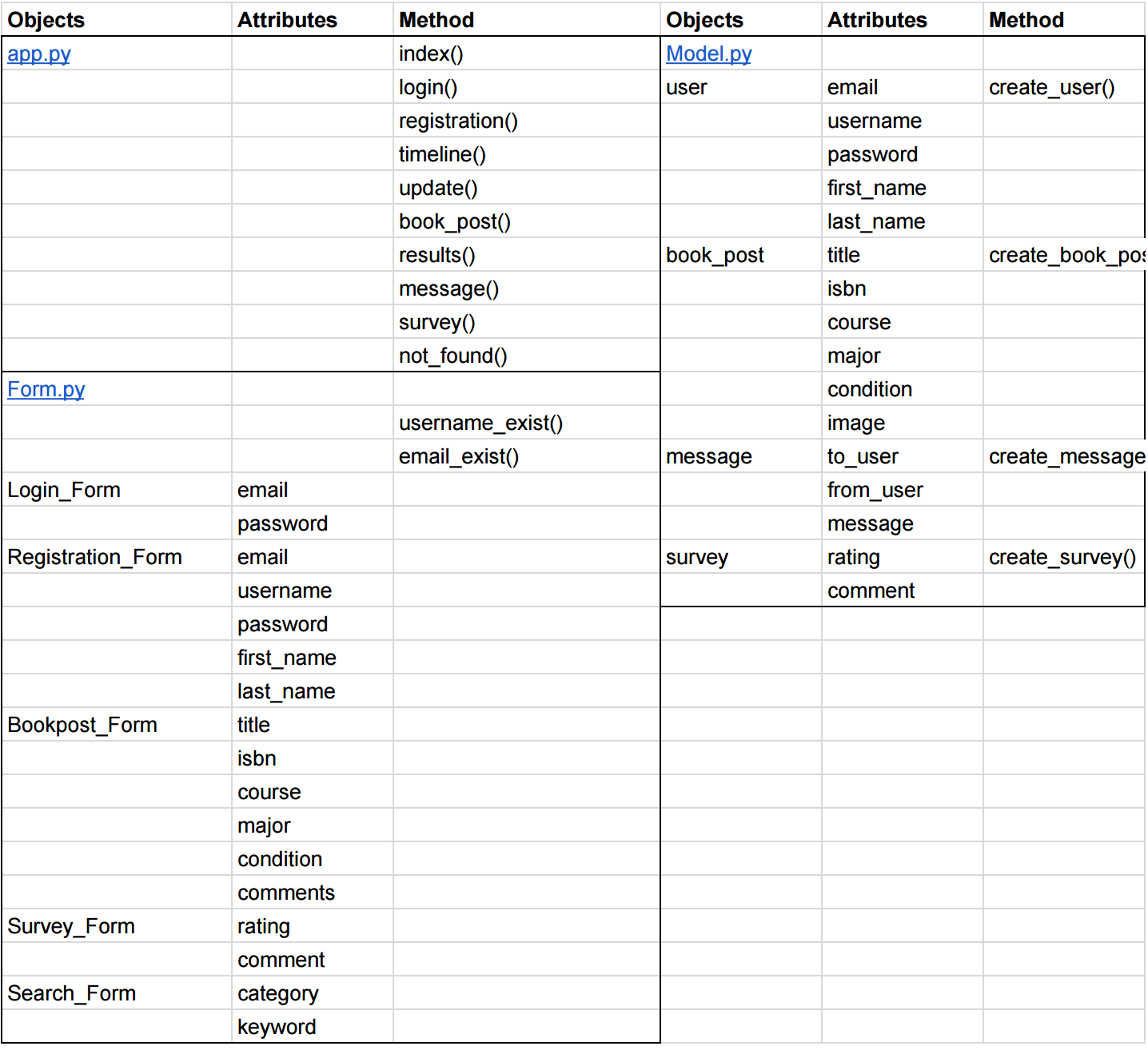
**Requirements Trace Matrix (RTM)**

|  |  |  |  |
| --- | --- | --- | --- |
| Entry Number | Paragraph Number | RTM Entry | Type |
| 1 | 2.1 | User is prompted to login using email and password | SW |
| 2 | 2.2 | If the User does not have an account, then the user will be prompted to create a new account. | SW |
| 3 | 2.3 | The web application will redirect a new user to an account registration page when they are directed to make one. | SW |
| 4 | 2.4 | The user will be taken to their timeline page where they can view book postings, transactions and messages. | SW |
| 5 | 3.1 | Users are about to create book postings when they are ready to sell their items. | SW |
| 6 | 3.2 | Book Transactions will send a notification and email to both the potential seller and buyer when a transaction is complete. | SW |
| 7 | 3.3 | The application will send a notification and email to the potential seller and buyer when a transaction is complete. | SW |
| 8 | 3.4 | The application will allow users to update their account information via an update page. | SW |
| 9 | 4.1 | The application will ask the users to update the status of the transaction one hour after completion. | SW |
| 10 | 4.2 | A survey will be initialized to ask the buyer how satisfied they were with the seller. | SW |
| 11 | 4.3 | If the survey is not complete, then the system will not allow another transaction until it has been completed. | DR, SW |
| 12 | 4.4 | A search menu will be used to find books by specific categories. The search option will be able to search by book title, ISBN, course, and major. | SW |
| 13 | 4.5 | The application will run on a Linux server. | HW |
| 14 | 4.6 | The application will utilize SQLite as its database system. | HW, SW |

**FCP (Function Cost Analysis)**



**Design of Objects (DOJ)**



**Work Share Document (WSD)**

**Daniel Campbell**

Role: Front-End Programmer

**McKenzie Rochester**

Role: Back-End Programmer

**Jeff Sikala**

Role: Database Programmer

**Jordan Smith**

Role: Technical Writer

**Anthony Jones**

Role: Team Leader/Client/Tester

**Project Timeline (Gantt Chart)**

October 16, 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Task | Task Description | Duration (Days) | Start Date | End Date |
| Introduction | | | | |
| 1 | Team Creation | 3 | 23-Aug | 25-Aug |
| 2 | Identify Team Roles | 3 | 25-Aug | 27-Aug |
| 3 | Identify Project Idea | 4 | 27-Aug | 1-Sept |
| 4 | Work Sign Document (WSD) | 5 | 28-Aug | 1-Sept |
| Requirement Elicitation | | | | |
| 5 | Problem Statement | 3 | 13-Sept | 17-Sept |
| 6 | Requirements Trace Matrix (RTM) | 2 | 17-Sept | 18-Sept |
| 7 | Gantt Chart | 2 | 17-Sept | 18-Sept |
| 8 | Dictionary | 2 | 17-Sept | 18-Sept |
| 9 | Project Rational | 2 | 17-Sept | 18-Sept |
| System Analysis | | | | |
| 10 | Updated Problem Statement | 3 | 19-Sept | 21-Sept |
| 11 | Update RTM, Gantt Chart, Dictionary | 3 | 22-Sept | 24-Sept |
| 12 | Use Cases | 9 | 24-Sept | 2-Oct |
| 13 | Interaction Diagrams | 1 | 2-Oct | 2-Oct |
| 15 | Horizontal Prototype | 1 | 2-Oct | 2-Oct |
| Object Design | | | | |
| 16 | Object Design | 2 | 12-Oct | 14-Oct |
| 17 | Function Point Cost Analysis | 1 | 15-Oct | 16-Oct |
| 18 | Update Gantt Chart | 1 | 15-Oct | 16-Oct |

**Dictionary**

* Web Application: A client server software application in which the client runs in a web browser.
* Database: A location where data is stored. It uses a language called SQL to issue commands to it. In our project we will be using SQLite as our database.
* URL: Uniform Resource Locator. Provides an address to a location on the world wide web.
* Redirected: Takes a user from one website to another website typically through a hyperlink.
* Query: A command for SQL databases.
* App: Short for application.
* Web Browser: A software application for retrieving, presenting, and traversing informational resources on the world wide web.
* Course: A class that is offered by a university or college.
* Web Browser Credentials: Information that is temporarily stored within the web browser in order to keep a user logged into the system for a period of time.
* Model: handles the database portion of the application. Also adds functionality to any objects.

**Object Rational**

**App.py** - the App.py object gathers input from the user and makes changes to the database and the display of the app.

**Form.py** - parent class for the various forms on the website

**Login\_Form** - user writes in information and it is then put into the database

**Registration\_Form** - user input information necessary for profile creation and the database is updated with the new information

**Bookpost\_form** - user input information necessary for posting a book on the website and the database is updated with new information

**Survey\_form** - ratings and comments form for the buyer’s experience with the seller

**Search\_form** - form for user input to allow searches for different books

**Model.py** - parent class for the various model’s for the app.

**User** - handles creating and storing the user model to the database.

**Book\_post** - handles creating and storing the book post to the database.

**Message** - handles creating and storing messages to the database.

**Survey** - handles creating and storing surveys to the database.