# Black Journal

Requirements Document

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# Introduction

Black Journal is a task management application for users to keep track of their daily tasks.

## Purpose and Scope

The purpose of Black Journal is to introduce a minimal, yet functional task management system to keep track of one's daily tasks. Black Journal seeks to replace traditional paper journals, and therefore is designed from the start to be lightweight along with the software-based features that come with using a task management program.

## Target Audience

Black Journal aims to appeal to the busy university student with regular changes in schedule, frequent tasks to be completed and upcoming course deadlines. Add to this?

## Terms and Definitions

* **Black Journal** – Project name
* **Black Journal Task Management Application** – Verbose name
* **TO DO** – Task list containing new tasks to do
* **IN PROGRESS –** Task list containing tasks that are currently in progress
* **DONE –** Task list containing completed tasks

# Product Overview

The purpose of this section is to describe the Black Journal Task Management Application from a high-level perspective, it's use cases, and it's stakeholders. Black Journal is a graphical task management application that keeps track of users and their task lists. Users will be able to log into their account to access their task lists. Users will have full control over three tasks lists:

1. **TO DO:** This list is for newly introduced tasks.
2. **IN PROGRESS:** This list is for tasks that are currently in progress.
3. **DONE:** This list is for tasks that have been completed.

## Users and Stakeholders

This section describes the stakeholders of the project. They will also be the users of Black Journal

### Stakeholder 1: Professor Fei Xie

Professor Fei Xie is our “client” for this project. He has provided the initial project requirements, and will be overseeing the project through it's requirements, design, test, and delivery phases.

### Stakeholder 2: Bin Lin

Bin Lin is also our “client” for this project. He will also be overseeing the project through it's requirements, design, test, and delivery phases.

### Stakeholder 3: Sean Sisson

Sean Sisson (myself) is the sole developer for this project. He will be designing, testing, and delivering the project to Professor Fei Xie once the application has reached completion.

## User Stories

This section of the document describes common user stories for the Black Journal Task Management Application.

### User Account:

As a user, I want to:

* Have a private account with a username and password
* Be able to create, edit, or delete any account that I own
* Be able to securely log in and out of the application
* Manage multiple accounts of my own if I so desire
* Be directed to all of my tasks lists opened after logging in

### Task Lists:

As a user, I want to:

* Immediately have access to three task lists: TO DO, IN PROGRESS, and DONE
* Be able to retrieve all of my entered tasks each time I open the application

### Individual Tasks:

As a user, I want to:

* Be able to enter a task title, priority, and description
* Create tasks, edit their contents, and delete tasks from the system
* Move a task to a new list other than it's own

# Functional Requirements

This section includes the specific actions that the software will perform as a whole.

## User accounts

The account management module will manage multiple user accounts across the system. A user account will have a username and password for them to log-in to the application. This includes login and logout methods for them to access the application. User account information will be stored in the database.

## Task lists

Each user of Black Journal will include three different types of task lists: TO DO, IN PROGRESS, and DONE. Tasks can be added, edited, and deleted to and from each list. Tasks will be able to be moved from one list to another in no particular order, but it is encouraged to follow the TO DO → IN PROGRESS → DONE workflow.

## Tasks

Tasks will include title and description fields describing individual tasks, as well as a task priority and an indication of which list they are in. Tasks will have add, edit, and delete methods, as well as a move method.

## Interface

The interface will be the main way the user interacts with the application. User accounts, tasks, and task lists will all communicate with the interface.

## Controller

The controller will act as a medium between the user interface and the Task List, Task, and User Account classes.

# Nonfunctional Requirements

This section will describe aspects of the software should meet from an outside perspective (i.e., it should be fast, should not be counter-intuitive from a design perspective, etc.)

## Simple User Interface

The user interface should be very easy to use. The user will not have to navigate to several different pages to perform a function. Three redirects will be the maximum amount of page traversals, so as not to frustrate or confuse the user. This corresponds with the project's goal of being a simple but efficient task management system.

## Minimal Database hits

To minimize latency, the application will only hit the database once the operation on the user account or task has been completed and requires a trip to the database. If the application saves each field after it is filled out, that will be too inefficient.

## Elegant design

Similar to user interface, the look and feel of the application should be modern, simple, and easy to look at over extended periods of time.

# Milestones and Deliverables

The purpose of this section is to identify the specific project milestones and deliverables that will be provided to the stakeholders.

## Design Document

The first milestone will be to turn in a design document to the stakeholders of Black Journal on **May 3rd, 2016.** It will contain the following information:

### Design Considerations

This section of the document will contain the specific system constraints and dependencies that the application will operate within. This includes re-iterating the functional and nonfunctional requirements the project must adhere to, as well as the design choices and methodologies used in the design plan.

### System Overview

This section will contain a complete and comprehensive high-level system description. This will not go into painstaking detail of each component, but instead serve as an introduction to a discussion of the system architecture.

### System Architecture

This section will provide a detailed, high-level description of each subsystem and their respective interfaces, internal architecture and algorithms. Larger subsystems may be broken up.

### Detailed System Design

This will contain a highly detailed description of how each sub system has been implemented. Contents may include data structures used, helper functions needed, pseudo-code, and any other information that would help describe each detailed subsystem.

## Test Plan

The second milestone will be to turn in a test plan to the stakeholders of Black Journal on  **May 24th, 2016.** The test plan will contain the following information:

### Test Plan Description

The test plan description will identify the scope in which the project needs to be tested. This includes which areas of the application will be or won't be tested and to what extent they will be tested, as well as the types of tests performed and omitted tests. This section will also include the testing schedule, as well as the maximum fault tolerance and criteria that the system must meet before being deployed.

### **Unit Testing**

This section describe the test plan in fine detail for all of the logical units of the application. One passing case and one exceptional case will be included for each unit.

### **Integration Testing**

This section will describe the test plan for the system as a whole.

## Final Project Deliverables

The final milestone of the project will be to deliver the whole project on **June 2nd, 2016**. This will be in the form of a 5-minute demonstration with stakeholder Bin Lin before finals week. The application should meet the requirements specified in the project description. Tests will also be run during the demonstration. A one-page summary is required for the project. *All functional requirements must be met before extra credit is given.* Check in the code to the RedMine repository.