

Project Plan

Team SPAM

SWE 3313, Group BBB
Professor Adkisson
2 October 2022

Table of Contents

Scope of the Project	3
Schedule	6
Work Breakdown Structure	6
Deliverables	9
Gantt Chart	10
Team Organization	11
Resumes	12
William Eaton	12
Sebastian Mielko	13
Joshua Whorton	14
Max Haviv	15
Technical Description	16
Data Management Plan	17
Test Plan	19

Scope of the Project

User/Customer Interaction:

1. Take in and accept drink orders
2. Identify customer status
3. Add reward points
4. Selected Payment:
 - a. Reward Points
 - b. Credit Card

Data Storage/Administrative Features:

1. Create file with data on customers and orders
2. Record and store sales information

Gui:

1. Main screen
 - 1.1. Button to order drinks (for anonymous customers)
 - 1.2. Customer list button
 - 1.3. Management tools button
2. Customer list screen
 - 2.1. Field of sorted customers
 - 2.2. Anonymous customer will remain at the top
 - 2.3. Button to create a new customer
 - 2.4. Order drink button, each customer will have their own individual button
 - 2.5. Main menu button

Project Plan

3. Add customer screen
 - 3.1. Field to enter customer information (first, last name, and phone number)
 - 3.2. After adding customer automatically send the user to the order drink screen
 - 3.3. Verify that the all data entered is valid
 - 3.4. Cancel button that will send user back to main menu
4. Order drink screen
 - 4.1. Two panes
 - 4.1.1. Left pane will be the drink creator
 - 4.1.2. Right pane is the drinks added to order list with prices
 - 4.2. Payment button that only activates after there is at least one drink added to order
 - 4.3. Cancel button that will return to main screen
5. Payment screen
 - 5.1. Display order details with total cost
 - 5.2. Field to enter credit card information
 - 5.3. Button to pay with reward points if the customer has enough reward points
 - 5.4. Payment button that will go to receipt screen if payment is successful
 - 5.5. Same payment button but for reward points
 - 5.6. Cancel button that returns customer to main screen
6. Receipt screen
 - 6.1. Field that shows all order information
 - 6.2. Show remaining rewards points is customer is not anonymous
 - 6.3. Main menu button
7. Management Screen

Project Plan

- 7.1. Button to create a CSV sales report
 - 7.1.1. Opens files immediately in excel
- 7.2. Main menu button

Open source Nuget packages:

- 1. Newtonsoft JSON
 - 1.1. Used to read and write JSON data
- 2. CSVHelper
 - 2.1. Used to generate a CSV file
- 3. CreditCardValidator
 - 3.1. Used to verify credit card is valid

Source Control:

- 1. GitHub

Schedule

Work Breakdown Structure

<u>Task Order</u>	<u>Project Task</u>	<u>Projected Start Date</u>	<u>Projected End Date</u>	<u>Assigned To:</u>	<u>Workload Hours</u>
A	Project Plan	9/22/22	10/9/22	All	49
A.1	First Draft	9/22/22	10/7/22	All	4
A.1.1	Project Scope	9/22/22	10/9/22	Sebastian Mielko	5
A.1.2	Schedule	9/22/22	10/9/22	Joshua Whorton	6
A.1.3	Team Organization / Roles	9/22/22	10/9/22	All	3
A.1.4	Resumes	9/22/22	10/9/22	All	5
A.1.5	Technical Description/System Requirements	9/22/22	10/9/22	Joshua Whorton	4
A.1.6	Data Management Plan	9/22/22	10/9/22	All	5
A.1.7	Test Plan	9/22/22	10/9/22	All	4
A.2	Final Draft / Revisions	10/7/22	10/9/22	All	13
B	Requirements	10/10/22	10/18/22	All	43
B.1	Requirements Elicitation	10/10/22	10/18/22	All	2
B.2	Requirements Document	10/10/22	10/18/22	Sebastian Mielko	8
B.2.1	Definition	10/10/22	10/18/22	All	5

Project Plan

<u>Task Order</u>	<u>Project Task</u>	<u>Projected Start Date</u>	<u>Projected End Date</u>	<u>Assigned To:</u>	<u>Workload Hours</u>
B.2.2	Implementation Priority	10/10/22	10/18/22	All	7
B.2.3	Use Case Diagram	10/10/22	10/18/22	All	4
B.2.4	Use Case Flow of Events	10/10/22	10/18/22	All	6
B.2.5	Decision Tables	10/10/22	10/18/22	All	7
B.2.6	Revisions	10/10/22	10/18/22	All	4
C	Design	10/18/22	11/7/22	All	51
C.1	UI Design	10/18/22	10/24/22	Max Haviv	6
C.1.1	Main Menu	10/18/22	10/24/22	Max Haviv	3
C.1.2	Order Screen	10/18/22	10/24/22	William Eaton	5
C.1.3	Final Transaction Screen	10/18/22	10/24/22	Max Haviv	3
C.1.4	Customer Login / Sign Up Screen	10/18/22	10/24/22	Joshua Whorton	5
C.1.5	Sales Report Screen	10/18/22	10/24/22	William Eaton	4
C.1.6	Receipt Layout	10/18/22	10/24/22	Max Haviv	3
C.2	Technical Design	10/24/22	11/7/22	Joshua Whorton	5
C.2.1	Configuration Data	10/24/22	11/7/22	William Eaton	5
C.2.2	Customer Data	10/24/22	11/7/22	William Eaton	4
C.2.3	Sales Data	10/24/22	11/7/22	William Eaton	4

Project Plan

<u>Task Order</u>	<u>Project Task</u>	<u>Projected Start Date</u>	<u>Projected End Date</u>	<u>Assigned To:</u>	<u>Workload Hours</u>
C.2.4	Data Storage	10/24/22	11/7/22	William Eaton	4
D	Implementation	11/7/22	11/28/22	All	70
D.1	UI	11/7/22	11/28/22	Max Haviv	20
D.2	Transaction Handling	11/7/22	11/28/22	Joshua Whorton	22
D.3	Data Storage	11/7/22	11/28/22	William Eaton	28
E	Testing	11/7/22	11/28/22	All	45
D.4	Unit Testing	11/7/22	11/28/22	All	25
D.5	System Testing	11/7/22	11/28/22	All	20

Deliverables

October 9, 2022: Project Plan

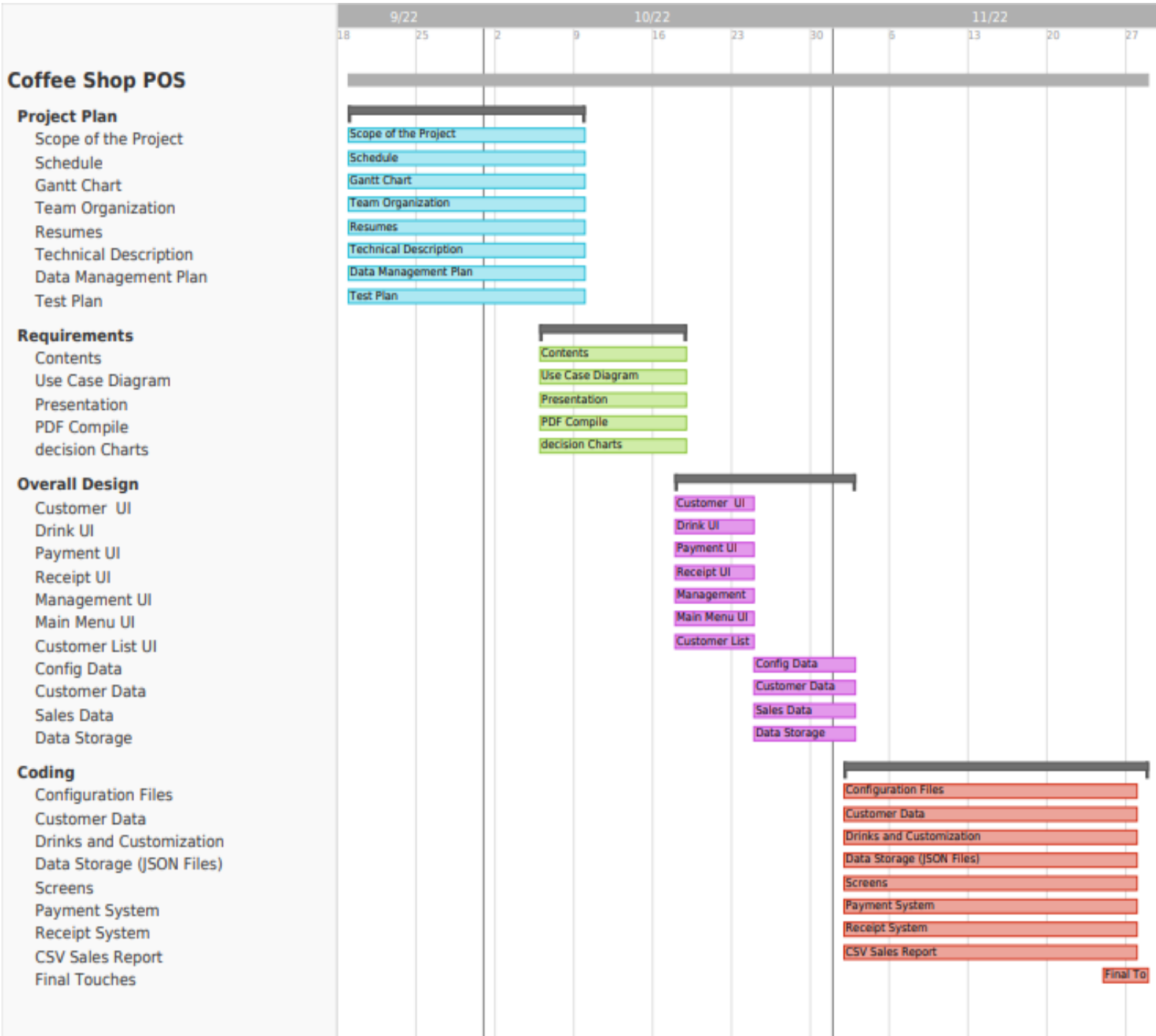
October 18, 2022: Requirements Document

November 7, 2022: Application Design Document

November 28, 2022: Finished Application

November 30, 2022: Peer Evaluation

Gantt Chart



Team Organization

Joshua Whorton: Lead Developer, Record Keeper

Sebastian Mielko: Lead Writer, Code Development

William Eaton: Database Engineer, Secondary Developer

Max Haviv: Lead UI-Designer, Code Development

Jeff Adkisson: Customer and Product Owner

Resumes

William Eaton

Email: weaton1@students.kennesaw.edu

Education:

**Bachelor of Science in Computer Game Design and Development at
Kennesaw State University**

Completed Software Courses:

- Programming and Problem Solving I
- Programming and Problem Solving II
- Fundamentals of Game Design

Technical Skills:

- Detailed knowledge of Java
- Fair knowledge of C#, HTML, and Python
- Experienced in the Following IDEs:
 - IntelliJ and Eclipse
 - Visual Studio

Skills:

- Experienced in object oriented code languages
- Workload Management

Project Plan

Sebastian Mielko

Email: smielko@students.kennesaw.edu

Education:

Bachelor of Science in Software Engineering at Kennesaw State University

Associates of Applied Science in Automotive Technology at Chattahoochee

Technical University 2018

Completed Software Courses:

- Programming and Problem Solving I
- Programming and Problem Solving II

Technical Skills:

- Working knowledge of C# and Java
- Google and Microsoft suites
- Experienced in using the following IDEs:
 - Visual Studio and Visual Studio Code
 - IntelliJ and Eclipse

Skills:

- Team Player
- Time Management
- Experienced Communicator
- Asking Questions

Projects:

- Currently working with a small team to create a coffee point of sale program.

Project Plan

Joshua Whorton

Email: jwhorto5@students.kennesaw.edu

Education:

**Bachelor of Science in Computer Game Design and Development at
Kennesaw State University**

Completed Software Courses:

- Application Extension and Scripting
- Fundamentals of Game Design
- Programming and Problem Solving I & II

Technical Skills:

- Well versed in C# and Java
- Deep understanding of modern programming standards (object-oriented programming, exception handling, file I/O, etc.)
- Experience with the Unity development environment
- Developing skills in Python, HTML, and JavaScript

Skills:

- Problem solving, both within and outside of software development
- Resourcefulness
- Technical writing skills

Research: Minimalist Generative Game Narratives (Kennesaw State University, October 2021 - present)

- Combined elements of game design, computer science and software engineering with the research process to create a computer game that studies user interpretations of game narrative
- Collaborated with other researchers using version control (Plastic SCM)

Project Plan

Max Haviv

Email: mhaviv1@students.kennesaw.edu

Education:

Bachelor of Science in Computer Science at Kennesaw State University

Completed Software Courses:

- Programming and Problem Solving I & II

Technical Skills:

- Fluent in Java
- Have a strong foundation of c#, c++, and python
- Experienced in the following IDEs
 - IntelliJ & Clion
 - Eclipse
 - Visual Studio

Skills:

- Quick learner
- Enjoy working in teams
- Enjoy learning new programming languages and techniques

Technical Description

This program will be written to run on lightweight systems, the requirements to run the application are solely based on the minimum system requirements of the .NET Framework.

Hardware and Operating System Requirements

- OS: Windows 7+
- Storage: 4.5 GB
- RAM: 512 MB
- Processor: 1 GHz

Application's User Interface

- Graphical User Interface created through C# Winforms consisting of six total screens.

Imported Packages

- Newtonsoft JSON to handle the JSON data files.
- CSVHelper to generate CSV files for data analytics.
- CreditCardValidator to check for valid credit card numbers.

Source Control

- The source code of the project will be stored and managed through GitHub.

Data Management Plan

Data Storage

- All data will be stored in 3 local JSON files.
 - Configuration data will be stored in appsettings.json
 - A JSON file that will handle the customer list and sales data
 - A JSON file that will handle the drink menu and customizations

Configuration Data

- Contains the drink menu and customizations.
 - This data will be read-only and stored in a String data type.
- Contains the tax rate on purchases.
 - This data will be read-only and stored in a Decimal data type.
- Contains the rate of Reward Points per dollar spent.
 - This data will be read-only and stored in a Decimal data type.

Customer Data

- Contains the first name of all customers.
 - Able to read and write and stored in a String data type.
- Contains the last name of all customers.
 - Able to read and write and stored in a String data type.
- Contains the phone numbers of all of the customers.
 - Able to read and write phone numbers and stored in an Integer data type.

Project Plan

- Contains the associated number of reward points to the customer.
 - Able to read and write reward points and stored in an Integer data type.

Sales Data:

- Contains any data that relates to the transaction of finances.
- Sales history will be stored in a .csv file.
- Date and time of transaction (C# DateTime)
- Customer ID (C# string)
- Payment method (“Credit Card” or “Rewards Points”; C# string)
- List of ordered items
 - Name of menu item(s) (C# string)
 - List of customizations (C# string; comma-separated)
 - Price of menu item(s) (C# decimal)
- Transactions (C# decimal)
 - Transaction subtotal
 - Total tax
 - Transaction total

Test Plan

Testing Personnel Structure:

- Testing will be managed through our Testing Lead and will be performed by the developers.

Requirements Testing:

- Direct collaboration with the customer to ensure the application acts as a solution.

Unit Testing:

- Testing will be performed on each individual unit of source code to ensure quality and correctness is maintained.
- Code will maintain naming standards to allow for efficient cross testing between developers.

Automated Unit Testing:

- Automated testing will be contingent on the timeliness of program completeness, as this will take resources from the development of the application.