

7th Level Putt Putt

Project Overview

This project aims to create a system that organizes and runs Putt Putt minigolf tournaments.

Players will be allowed to sign up for tournaments and order drinks during the tournament. Managers will be able to create barista and sponsor users. Managers will also be able to edit what drinks are offered at the tournaments.

Team Organization

Project Manager: Jordan Taylor

Developers: Ben Ashton, Erik Johnson, Jonathan Scoresby

Software Development Process

The development process will take place in five phases. Each phase is similar to a Sprint in an Agile method combined with an Iteration in a Spiral process. Each phase will be like a Sprint, in that work to be done will be organized into small tasks, placed into a sprint backlog, and prioritized. Then, using on time-box scheduling, the team will decide which tasks the phase (Sprint) will address. The team will use a GitHub Repository to keep track of tasks (issues) in the product backlog. Those tasks that will be part of the current Sprint will be kept in the GitHub Project, those in progress, and those that are done.

Each phase will also be a little like an iteration in a Spiral process, in that each phase will include some risk analysis and that any development activity (requirements capture, analysis, design, implementation, etc.) can be done during any phase. Early phases will focus on understanding (requirements capture and analysis) and subsequent phases will focus on design and implementation. Each phase will include a retrospective.

Phase	Iteration
1	Requirements Gathering - Toolstack, Project Plan, Requirements List
2	High-level Design - Analysis, Architectural, UI & DB Design
3	Low-level Design - Refinement, Development, Unit Testing

4	Implementation, Testing, & Deployment
5	Wrap-up

Our team will use Unified Modeling Language (UML) to document user goals, structural concepts, component interactions, and behaviors.

Communication Policies, Procedures, and Tools

The main platform for team communication will be over Discord. This is where we collaborate by holding meeting calls, sharing ideas, and asking questions. A daily standup/scrums meeting is posted for team-members to share what they are currently working on to keep the workflow moving while creating daily accountability.

Github is used to manage our team's code repository containing everything needed to build and run the web application. The team also uses Github to track issues/tasks pertaining to the project. Issues are created and assigned to a team member to be tracked and completed to ensure all customer requirements are met.

Formal documents pertaining to the project are stored in a shared google drive folder accessible to team members. This enables the entire team to brainstorm, write, and review documentation simultaneously.

Risk Analysis

- Drink Purchasing
 - Likelihood - Med
 - Severity - Med-High
 - Consequences - Player unhappy with drink/service/incorrect order
 - Work-Around - Implement the ability to refund
- Sponsor Reservation System
 - Likelihood - Low
 - Severity - High
 - Consequences- Unable to create tournaments
 - Work-Around - None, hope that desired tournament date is far enough out that there is time to quickly fix the issue and get the tournament created to advertise the event.

- Player's Money Account
 - Likelihood - low
 - Severity - high
 - Consequences-
 - Work-Around - Could possibly purchase drinks in person, but sort of ruins the point of being able to order drinks while out on the course.
- Player Golf Score Tracker
 - Likelihood - Low
 - Severity - High
 - Consequences - Players are unable to track their scores, rendering them unable to compete in the tournament
 - Work-Around - Possibly have back up paper/pencil stations around the course
- Tournament Sign-up
 - Likelihood - Med-High
 - Severity - Med-High
 - Consequences- Could have too many sign-ups and overcrowding for a tournament leading to dissatisfaction or too many players for the course.
 - Work-Around - Limit the possible number of players that can be signed up for a tournament.
- Drink Fulfilment
 - Likelihood - Med
 - Severity - Low-Med
 - Consequences- May be difficult for bartender to know where to deliver the order when drinks are made
 - Work-Around - Have the order update when they move along after finishing a hole

Configuration Managements

See the README.md in the Git repository