**Moffat Bay Marina**

**Technical Design Document (TDD)**  
**Team Leader:** Josh Martin

**Introduction**

This document explains what we’re building, who we’re building it for, and how we plan to get it done. It includes simple descriptions of our users, what they need, and a list of things we’ll build to meet those needs.

**1.1 Purpose**

The goal of this project is to build a web-based system that helps Moffat Bay Marina manage boat slip rentals, customer accounts, services (like boat maintenance), and payments. It will make things easier for customers, employees, and managers.

**1.2 Terminology**

* Slip – A parking spot for a boat
* Reservation – A booking that saves a slip for a customer
* Waitlist – A list of people waiting for a slip when none are available
* Customer ID – A unique number that identifies each customer
* Username – The customer's email used to log in
* Session – The time a user is logged in
* Authentication – Making sure someone is who they say they are when they log in

**1.3 User Personas**

Below are 3 example users of our system. These help us think through what different people need.

**Josh Martin – Customer**  
Josh Martin
  
Josh is a retired boat owner. He uses the system to view his account, check his balance, and manage his services. His wife has mobility issues, so he wants to move to slips closer to the parking lot when possible.

**Tricia Hicks – Marina Employee**  
  
Tricia works at the marina front desk. She helps customers, manages slips, and updates services like boat maintenance. She needs fast search tools and a simple interface.

**Jordan Belford – Account Manager**  
  
Jordan oversees payments and customer accounts. He checks for overdue balances, views open slips, and reaches out to customers when needed.

**1.4 User Stories**

Each user has things they need to do in the system. These stories help us plan features.

**Josh Martin (Customer)**

1. I want to see my account and slip info so I know what I’m renting and how much I owe – 3 points
2. I want to request a closer slip if one opens up – 5 points
3. I want to manage services like boat maintenance from my dashboard – 3 points

**Tricia Hicks (Employee)**  
4. I want to search for slips by customer name – 3 points  
5. I want to check slip availability by size – 3 points  
6. I want to add or remove services from customer accounts – 5 points

**Jordan Belford (Manager)**  
7. I want to view overdue payments – 5 points  
8. I want to see how many slips are open by size – 3 points  
9. I want to find customer contact info by slip number – 3 points

**1.5 To-Do List (Work Estimations)**

Here’s a list of tasks we’ll be building, along with short descriptions and how difficult they are (story points).

**Task:** Create sign-up form

* Lets users register using their email and password
* Story Points: 5

**Task:** Create login/logout system

* Keeps users logged in with sessions and logs them out securely
* Story Points: 5

**Task:** Build dashboard to show account info and slip details

* Users can see their slip, balance, and history
* Story Points: 3

**Task:** Add slip transfer request option

* Users can request a move if another slip opens up
* Story Points: 5

**Task:** Let users manage extra services (like maintenance)

* Users can add/remove services through their dashboard
* Story Points: 3

**Task:** Add search by customer name for employees

* Helps staff find slip info quickly
* Story Points: 3

**Task:** Add filters by slip size and availability

* Makes it easy to see what’s open
* Story Points: 3

**Task:** Allow employees to update services on customer accounts

* Staff can make changes on behalf of users
* Story Points: 5

**Task:** Build overdue payments dashboard

* Shows which customers owe money and how much
* Story Points: 5