

Product Requirements Document (PRD)
Product Name: Nautical Rules – Quiz & Study Aide
Owner: [Your Name]
Version: 1.0
Date: [Insert Date]

1. Overview

Nautical Rules – Quiz & Study Aide is designed to help mariners and students prepare for the U.S. Coast Guard Rules of the Road exam. It provides a comprehensive study and quiz experience that functions entirely offline, enabling users to practice anywhere — including offshore environments without internet access.

2. Goals & Objectives

- Deliver a reliable offline training tool for maritime professionals.
- Support adjustable quiz lengths to align with user study goals.
- Provide immediate learning reinforcement with answer explanations.
- Allow users to track their learning progress through review history.
- Offer a study mode for full question bank review and memorization.

3. Key Features

3.1 Offline Functionality

All necessary data stored locally — works at sea with no WiFi or cellular.

3.2 Quiz Mode

- User selects number of questions (e.g., 10 / 25 / 50 / 100 or full bank).
- Each question displays text, 4 answer choices, and optional illustration.
- Incorrect answers show the correct answer + explanation.
- Final score only visible after all questions completed.

3.3 Study Mode

Randomized continuous review of the full question bank with answers and explanations visible.

3.4 Review Section

- Stores and displays historical quiz performance.
- Shows score, missed questions, user answers, correct answers, and explanations.
- Allows users to retake full quizzes or just missed questions.

3.5 Question Bank Support

- Import via Excel (.xlsx) or CSV (.csv).
- Fields: Question ID, Text, Answers (A/B/C/D), Correct Answer, Explanation, Optional Image Filename.

4. Technical Requirements

Requirement	Description
Platform	iOS + Android
Offline Storage	All content stored locally in app files
Data Architecture	SQLite or local database for questions & quiz history
Image Support	Local image assets referenced in database
Scoring	Percentage + count displayed at quiz end

| Language | English (Phase 1) |
| Framework | Flutter or React Native recommended |

5. UX / Navigation Flow

Home Screen:

- Start Quiz
- Study Mode
- Review Past Tests
- Settings

Quiz Flow:

1. Select number of questions
2. Navigate question-by-question
3. Receive explanations only when wrong
4. View results summary at end

Study Flow:

- Random display of questions with answers shown immediately

Review Flow:

- Quiz log view → drilldown → question-by-question review

6. Future Enhancements

- Timed quiz mode
- Personalized study lists (Flag/Favorite feature)
- Analytics dashboards (score trends, category breakdowns)
- Cloud backup/restore for fleet training environments