

ITE 3999 – Final Year Project 21-S2

Software Requirements Specification

Cruise Line Reservation System

**Bachelor of Information Technology
(External Degree)
Faculty of Information Technology
University of Moratuwa**

Table of Contents

1. Introduction	3
1.1. Purpose	3
1.2. Intended Audience and Reading.....	3
1.3. Project Scope	4
2. Overall Description.....	5
2.1. Product Perspective	5
2.2. User Classes and Characteristics.....	6
2.3. Operating Environment	7
2.4. User Documentation.....	7
3. System Features.....	7
3.1. System Feature 1	7
4. External Interface Requirements.....	8
4.1. User Interfaces.....	8
4.2. Hardware Interfaces	9
4.3. Software Interfaces.....	9
5. Other Nonfunctional Requirements	9
5.1. Performance Requirements.....	9
5.2. Safety Requirements.....	9
5.3. Security Requirements.....	10
5.4. Software Quality Attributes	10

1. Introduction

1.1. Purpose

Today, one of the biggest social and economic phenomena in the world is tourism, and the internet plays a key role in facilitating connections between the various tourist-related entities and the items they relate to. Tourism is one of the industries that use the Internet the most concurrently. When it comes to online sales, touristic goods like last-minute airline tickets, hotel rooms, and package deals are the most popular, excluding the sale of books. As a result, the Internet functions as the primary reserve mechanism.

"Cruise tourism is an opulent kind of travel that entails an all-inclusive vacation on a cruise ship for at least 48 hours, on a predetermined route, during which the ship makes port calls at various towns or ports." A cruise ship, sometimes known as a cruise liner, is a type of passenger ship used for leisure travel, where the journey itself, the amenities on board, and the various ports of call along the way all contribute to the overall experience. Cruising serves more than just transportation needs, especially on cruises that take guests back to their starting port (also known as a closed-loop cruise), with the ports of call often located in a certain area of a continent.

Based on my research, there are a few web applications that identify as cruise booking for world; however, they are not competent enough to fulfill the integral necessities of a traveler. Here, I identified the needs of the tourist and divided the way of booking the ships accordingly into several parts. Accordingly, according to the destination country, the destination port and the traveling ship, and according to the convenient dates for the traveler, a website will be created to make it easy for them to book these ships.

1.2. Intended Audience and Reading

The intended audience for a Cruise Line Reservation website can include a wide range of people, depending on the specific focus and features of the website. Some possible audiences for such a website are:

Customers: The primary audience for a Cruise Line Reservation website are the customers who are looking to book a cruise, browse available options, and manage their bookings. The website designed to be user-friendly and accessible to people with varying levels of technical expertise.

Travel Agents: Travel agents may also be part of the audience for a Cruise Line Reservation website, as they can help their clients book cruises through the website. The website provide

travel agents with tools and resources to help them make bookings and manage their clients' reservations.

Cruise Line Staff: The staff of the cruise line, including customer service representatives and reservation agents, may also be part of the audience for the website. The website provide them with the tools and resources they need to manage bookings, handle customer inquiries, and process payments.

Marketing and Sales Teams: The marketing and sales teams of the cruise line may also use the website to promote the company's services, showcase new products and features, and track customer engagement and feedback.

Business Partners and Suppliers: Business partners and suppliers of the cruise line, such as travel agencies, hotels, and transportation providers, may also use the website to coordinate bookings, payments, and logistics related to the cruise line's operations.

1.3. Project Scope

There are several reputable cruise lines to select from, each offering distinctive onboard experiences and frequently catering to a certain demographic. Everything depends on the type of cruise experience you want.

When looking for your next cruise vacation, picking a destination is probably one of the most enjoyable challenges you'll face. However, with so many options available to you, it's critical to think carefully about what you want from your trip.

There are many things to decide after selecting your perfect cruise line and location. When choosing a ship and route, there are several factors to take into account, such as on-board amenities, potential savings, and practical departure ports.

With a variety of possible cabins, you'll probably have a ton of options when choosing your on-board lodging. There are up to 40 different suite and stateroom categories on some newer ships, so it's crucial to choose the type of living space you need while at sea.

It's always helpful to get a good deal on your initial fare because doing so will give you more money to spend on the ship and in ports.

Overall, the Cruise Line Reservation website provide a user-friendly interface, easy navigation, and a smooth booking experience to attract and retain customers.

2. Overall Description

2.1. Product Perspective

User Registration and Login: Users to create an account on the website and login to access their account details and make reservations.

Cruise Line Listings: The website display information about different cruise lines, including the itinerary, ship details, and pricing.

Cabin Selection: Users able to browse available cabins on the cruise ship and select their preferred cabin based on features and pricing.

Reservation System: Users able to make reservations for their chosen cruise, select the dates and cabin they want, and pay for the reservation online.

Customer Support: The website provides customer support through email, chat, or phone for any queries or issues related to reservations.

Reviews and Ratings: The website allow customers to leave reviews and ratings for the cruise line and cabins they have booked, which can help future customers make informed decisions.

Social Media Integration: The website has social media integration to enable users to share their bookings and experiences with their friends and followers.

Admin Dashboard: The website has an admin dashboard for managing the listings, reservations, payments, customer support, and other aspects of the website.

Overall, the Cruise Line Reservation website provide a user-friendly interface, easy navigation, and a smooth booking experience to attract and retain customers.

Overall, the scope of the project the specific requirements of the cruise line and the needs of their target audience. It is important to conduct thorough research and gather feedback from potential users to ensure that the website meets their expectations and provides a seamless booking experience.

2.2. User Classes and Characteristics

- First-time cruisers: These users may be new to the cruising experience and are likely to need more guidance and information about the cruise line, destinations, and onboard facilities.
- Experienced cruisers: These users have likely been on multiple cruises and are familiar with the cruising experience. They may be interested in more specialized or exotic itineraries, or may be looking for specific amenities or services.
- Families with children: These users may be looking for family-friendly cruise options with onboard activities and facilities geared towards children, such as kids' clubs, water parks, and family-friendly dining options.
- Solo travelers: These users may be looking for opportunities to socialize and meet other travelers, as well as access to single cabins or low single supplements.
- Older adults: These users may be interested in more relaxed and luxurious cruises, with options for fine dining, spa treatments, and cultural enrichment activities.
- Adventure seekers: These users may be looking for cruise options that offer more adventurous and active itineraries, such as expedition cruises, shore excursions, and outdoor activities.
- Budget-conscious travelers: These users may be looking for affordable cruise options with discounted rates or deals, or may be interested in last-minute bookings.

2.3. Operating Environment

Hardware Computer

- 64-bit Microsoft Windows 7/8/10/11
- CPU architecture; Intel Pentium 4 or later
- 2 GB minimum, 4 GB recommended
- 1280x1024 or larger
- Broadband Internet connection

Software

- Web Browser
- Xampp
- Adobe Dreamweaver

2.4. User Documentation

- User manual
- Inline explanation
- tutorials

3. System Features

3.1. System Feature 1

Functional Requirements of A Cruise Line Reservation

- User Registration: The website allows users to create an account, login, and manage their profile information.
- Cruise Search: The website has a search feature that allows users to search for cruises based on various filters, such as destination, date range, price, and cabin type.
- Itinerary Details: The website provide detailed information about each cruise, including the itinerary, ports of call, onboard activities, dining options, and cabin amenities.
- Cabin Selection: The website allows users to select their preferred cabin type and location, and view cabin availability in real-time.
- Customer Support: The website provides customer support through email, live chat, or phone.
- Account Management: The website allows users to manage their bookings, view their itinerary, and make changes or cancellations if necessary.

- Loyalty Programs: The website offers loyalty programs or rewards to encourage repeat bookings.
- Mobile Compatibility: The website optimized for mobile devices, with a responsive design that adapts to different screen sizes.

4. External Interface Requirements

4.1. User Interfaces

The user interface of a cruise line reservation website is an essential aspect of the user experience. It intuitive, easy to navigate, and visually appealing to encourage users to book their trips. Here are some key features of a well-designed cruise line reservation website:

- Clear Navigation: The website has a clear and concise menu bar with easy-to-understand labels that help users find what they are looking for quickly.
- Booking Engine: The booking engine easy to use, with clear instructions and prompts that take users through the booking process step-by-step.
- Cabin Selection: The website has a clear and detailed cabin selection process that allows users to filter by location, price, and other amenities.
- Itinerary Details: The website provide detailed information about the itinerary, including ports of call, shore excursions, and onboard activities.
- Deck Plans: The website has detailed deck plans that allow users to preview the ship's layout and choose the best cabin location.
- Payment Options: The website accepts multiple payment options, including credit cards, debit cards, and PayPal.
- Mobile-Friendly: The website be mobile-friendly, with a responsive design that accommodates users on all devices.

By incorporating these features, a cruise line reservation website can provide a smooth and user-friendly experience that encourages users to book their trips and return for future vacations.

4.2. Hardware Interfaces

Hardware Computer

- 64-bit Microsoft Windows 7/8/10/11
- CPU architecture; Intel Pentium 4 or later
- 2 GB minimum, 4 GB recommended
- 1280x1024 or larger
- Broadband Internet connection

4.3. Software Interfaces

Software

- Web Browser
- Xampp
- Adobe Dreamweaver

5. Other Nonfunctional Requirements

5.1. Performance Requirements

Performance requirements refer to the website's ability to handle a large number of users simultaneously without any delays or interruptions. This includes factors such as page load times, server response times, and the ability to handle peak traffic loads during high booking periods. A cruise line reservation website designed to perform efficiently at all times to ensure that users have a positive experience.

5.2. Safety Requirements

Safety requirements refer to the website's ability to protect users from harm while using the site. This includes ensuring that the website is free from viruses and malware, and that users' personal information is protected from unauthorized access. The website also comply with relevant safety regulations and standards to ensure that users are safe while onboard the cruise ship.

5.3. Security Requirements

Security requirements refer to the website's ability to protect users' personal and financial information from theft or fraud. This includes implementing secure payment processing systems, using SSL encryption to protect user data, and implementing measures to prevent unauthorized access to sensitive information.

5.4. Software Quality Attributes

Software quality attributes refer to the overall quality of the website's design, functionality, and usability. This includes factors such as ease of use, reliability, maintainability, and scalability. A well-designed cruise line reservation website be easy to use, reliable, and scalable to accommodate the needs of a growing user base. Additionally, the website be easy to maintain and update to ensure that it remains current and relevant.