PRAC 1

Software Engineering

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Apr 04, 2025

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Self-Responsibility Declaration

I certify that I have completed Practice 1 entirely on my own and solely with the assistance deemed appropriate by the course instructors, according to the guidelines explained in the Originality in Assessment section of the classroom.

I understand that non-original work and/or the use of generative AI will result in the submitted activity not being graded and will automatically receive a score of 0.

Question 1

Below are three non-functional requirements identified from the statement:

• Requirement 1

- Phrase: I would like the application to have a visual appearance in line with the company's colors and aesthetics...
- Description: The user interface must reflect the company's brand identity by using its specific colors, design elements, and overall aesthetic, thereby making the application immediately recognizable as a WeddingWorld tool.
- Type: Look and feel requirement
- Stakeholder: $Alba\,$

• Requirement 2

- Phrase: the application must be available both as a web version and as a mobile app for smartphones (Android and iOS).
- Description: The system has to be developed for multiple platforms, ensuring that it runs consistently on desktop browsers as well as on native mobile devices (Android and iOS), so users can access it in different environments.
- Type: Portability requirement
- Stakeholder: Pablo

• Requirement 3

- Phrase: the application should support 1,000 concurrent users under normal conditions but must be able to handle spikes of up to 5,000 concurrent users.
- Description: The system must be engineered to maintain acceptable performance under typical usage (1,000 users simultaneously) and be scalable enough to manage significant load increases (up to 5,000 concurrent users) during busy periods.
- Type: Performance/scalability requirement
- -Stakeholder: Estefanía

Question 2

User roles:

- Wedding Planner
- Wedding Couple
- Guest
- Service Provider

Question 3

Functional Requirements in User Story Format

1. Virtual Event Board

- User Story: As a wedding planner I want a virtual event board to add confirmed wedding events so that couples can easily keep track of the wedding day schedule.
- Phrase: "The first functionality I want to implement is the virtual event board. This is a shared virtual board between the spouses and the wedding planner, where the assigned wedding planner will chronologically add all the confirmed events for the wedding day."

2. Wedding Invitation Process

- User Story: As a wedding planner I want to register weddings and send email invitations to couples so that they can confirm their wedding details.
- Phrase: "The virtual invitation process should work as follows: The responsible wedding planner
 will access the application and register the wedding. The first step will be to associate both
 spouses with the newly created wedding. Once linked by the wedding planner, the couple will
 receive an email with a link allowing them to register and confirm that this is indeed their
 wedding."

3. Public Registration Link for Guests

- User Story: As a couple I want to share a public registration link with guests so that only invited guests can register and be linked to our wedding.
- Phrase: "I would prefer if the wedding within the application had a public link, visible only to us (the couple), which we could share with guests so they can register and link themselves to the wedding through this link. However, before finalizing the linkage, we would validate that the person is indeed an invited guest."

4. Direct Service Provider Registration

- User Story: As a service provider I want to register and publish my services directly in the application so that I can quickly update details such as pricing and discounts without an intermediary.
- Phrase: "As a provider, I would like to be able to register in the application and publish my services directly, without having to go through an intermediary from Alba's company."

Acceptance Tests for the Example User Story

1. Upload Process Verification

• Test that when a guest selects the upload option and chooses a valid photo file (e.g., JPEG or PNG), the image is successfully uploaded and immediately displayed in the wedding photo gallery with the correct timestamp and attribution.

2. File Format and Size Handling

• Test that the system accepts only supported image formats (such as JPEG and PNG) and enforces any file size limits by displaying a clear error message if a guest attempts to upload a file that is in an unsupported format or exceeds the size limit.

3. User Interface Feedback

• Test that after a successful upload, the application shows a visible progress indicator during the upload process and a confirmation message once the upload is complete, ensuring that the guest is aware that their photo has been added to the gallery.

Question 4

A clear conflict arises regarding the commission fee imposed on service providers:

- Stakeholders involved:
 - Alba (Wedding planner and CEO of WeddingWorld) and Pablo (Financial Director) support charging a commission.
 - Nuria (Event Restaurant Manager and service provider) opposes any commission fees.
- Requirement 1: "Charge a small commission to the provider for acquiring a new client through our platform."
 - Alba and Pablo argue that this commission creates an additional revenue stream that helps cover maintenance costs and contributes to the financial sustainability of the application.
- Requirement 2: "I would not be in favor of being charged a commission for publishing our services or for being booked through the application."
 - Nuria explains that eliminating commission fees would allow providers like her to register and update their service details more directly and efficiently, thereby facilitating quicker service updates and reducing financial burdens on the providers.

Question 5

- Use Case Identifier: UC-VWI-01 (Sending Virtual Wedding Invitations)
- Actor Principal: Wedding Planner (Alba)
- Supporting Actors:
 - Spouses (Couple)
 - Guests
- Level: User qoal (high-level functionality that supports the wedding management process)
- Scope: Wedding Management Application
- Main Stage of Success:
 - 1. The wedding planner accesses the application and creates a new wedding record.
 - 2. The wedding planner associates both spouses with the wedding.
 - 3. Once associated, each spouse receives an email containing a registration link to confirm that the wedding details are correct.
 - 4. After the spouses confirm their registration, the wedding planner inputs the guest list (using the provided and authorized email addresses).
 - 5. Guests receive a virtual invitation via email that includes a link to register on the application.

- 6. Interested guests register (if they choose) and confirm their attendance directly within the application.
- 7. The use case completes once the guests' attendance has been confirmed.

• Alternative Scenarios:

- 1. **Spouse Email Error:** If the wedding planner enters an incorrect email address for one or both spouses, the registration email is not received. In this case, the spouses must notify the wedding planner or the planner must verify and re-enter the correct email addresses before resending the invitation.
- 2. **Optional Guest Registration:** Some guests may choose not to register in the application. In these cases, although they still receive the virtual invitation by email, no further confirmation is performed within the app.
- 3. **Guest Declines Invitation:** A guest might register on the application but then actively decline the invitation. This outcome is documented, and the guest is marked as not attending, prompting the wedding planner to follow up or update their list accordingly.

Question 6

Existing User-Level Use Cases

1. Sending Virtual Wedding Invitations

- Main actor: Wedding Planner
- Brief Description: The wedding planner creates a new wedding record, associates the spouses, inputs the guest list, and the system automatically sends invitation emails to guests so that they can confirm their attendance.

2. Direct Service Provider Registration

- Main actor: Service Provider
- Brief Description: A service provider registers in the application and publishes his or her services directly, thereby updating information such as pricing and discounts without intermediary intervention.

New User-Level Use Cases Consistent with the Context

1. Manage Wedding Budget

- Main actor: Couple
- Brief Description: The couple can track and manage all wedding-related expenses, enter cost items, view budget summaries, and adjust allocations, ensuring that they remain within their planned spending.

2. Manage Service Bookings

- Main actor: Service Provider
- Brief Description: A service provider can view, confirm, and manage the bookings received through the application, including checking details of each booking and updating availability

accordingly.

Task-Level Use Cases for a and b

"Sending Virtual Wedding Invitations" (Main actor: Wedding Planner)

- Task-Level Use Case 1: Create Wedding Record and Associate Spouses
 - Description: The wedding planner enters wedding details and associates both spouses to the newly created wedding record. This task ensures that the couple receives the registration email to confirm their wedding details.
- Task-Level Use Case 2: Input Guest List and Initiate invitation Email
 - Description: The wedding planner inputs the list of guest email addresses, verifies their correctness, and triggers the system to send out virtual invitation emails so that guests can register and confirm their attendance.

"Manage Wedding Budget" (Main actor: Couple)

- Task-Level Use Case 1: Record New Expense Item
 - Description: The couple enters details for a new expense (such as amount, category, and date)
 into the application, thereby updating their wedding cost records.
- Task-Level Use Case 2: View and Update Budget Overview
 - Description: The couple accesses the current budget summary, reviews expense totals against their planned budget, and makes adjustments to budget allocations if necessary.