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E-Commerce.

Business Plan Submission

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**Bubble Booking Project Documentation**

**1. Introduction**

**1.1 Project Overview**

Bubble Booking is an e-commerce platform designed for the spa and wellness industry. The platform allows spas to manage their subscriptions, services, and appointments, while providing customers with a seamless experience for booking appointments.

**1.2 Objectives**

* To streamline spa operations through an intuitive online platform.
* To provide a centralized booking solution for customers.
* To enable admin oversight of subscriptions, payments, and customer feedback.

**1.3 Scope**

* **Users**: Customers, spa owners(Main focus), and admins.
* **Modules**:
  + User registration and login.
  + Spa management and subscriptions.
  + Appointment booking and feedback.
  + Payment processing and reporting.

**2. System Features**

**2.1 User Features**

* **Customers**:
  + View available spas and services.
  + Book appointments and leave feedback.
  + Manage cart and checkout.
* **Spa Owners(main focus)**:
  + Subscribe to the platform (normal or custom plans).
  + Add and manage services.
  + View appointments and feedback.

**2.2 Admin Features**

* Approve, update, or delete spa subscriptions.
* Monitor payments and generate reports.

**3. System Design**

**3.1 Architecture**

The platform follows the **MVC (Model-View-Controller)** architecture to separate logic, presentation, and data.

* **Model**: Handles database operations (e.g., spa services, subscriptions, users).
* **View**: Presents data to users via HTML/CSS.
* **Controller**: Processes user inputs and interacts with models.

**3.2 Database Design**

The database includes the following tables:

1. **users**: Stores user information (admin, spa owners, customers).
2. **roles**: Defines user roles.
3. **spas**: Stores spa details.
4. **spa\_services**: Tracks services offered by spas.
5. **appointments**: Manages booking information.
6. **payments**: Tracks payment transactions.
7. **feedback**: Stores customer reviews.
8. **waitinglist**: Manages waiting list for services.
9. **status**: Tracks statuses for services and appointments.

**4. Implementation**

**4.1 Technology Stack**

* **Backend**: PHP, MySQL
* **Frontend**: HTML, CSS, JavaScript
* **Framework**: MVC architecture
* **Hosting**: XAMPP (local) / Web hosting (deployment)

**4.2 Backend Implementation**

Key backend features:

* **User Authentication**:
  + Login and registration with password hashing.
  + Session management.
* **Payment Processing**:
  + Integration of subscription plans.
  + Payment status tracking.
* **Admin Controls**:
  + Add, update, and delete subscriptions.
  + View user activity.

**4.3 Frontend Implementation**

* **User Interfaces**:
  + Landing page, subscription forms, and payment pages.
* **Responsive Design**:
  + Ensure compatibility with mobile and desktop devices.

**5. Testing**

**5.1 Testing Methods**

* **Unit Testing**: Verify individual backend functions (e.g., database queries, authentication).
* **Integration Testing**: Ensure modules work together (e.g., payments with subscriptions).
* **User Acceptance Testing**: Simulate user workflows.

**Use the following logins**

**For the parlour admin use** [**nhyira.wilson@ashesi.edu.gh**](mailto:nhyira.wilson@ashesi.edu.gh) **and password Ka\_yson02**

**For the bubble booking admin use** [**bryne.antwi@ashesi.edu.gh**](mailto:bryne.antwi@ashesi.edu.gh) **and password Ka\_yson02**

**For the normal user use** [**ewura.wilson@ashesi.edu.gh**](mailto:ewura.wilson@ashesi.edu.gh) **and password Ka\_yson02**

**6. Deployment**

**6.1 Hosting Environment**

* Use **XAMPP** for local testing.
* Deploy to a cloud provider like AWS or a shared hosting provider (e.g., Bluehost).

**6.2 Deployment Steps**

1. Export the MySQL database from the local environment.
2. Upload project files to the hosting server.
3. Update db\_class.php with live server credentials.
4. Test the deployed application.

**7. Sustainability and Future Enhancements**

* **Growth**:
  + Add a mobile app for better accessibility.
* **Expansion**:
  + Include additional wellness services.
* **Diversification**:
  + Partner with beauty and healthcare brands.
* **Cost Reduction**:
  + Optimize database queries and reduce server costs.

**8. Conclusion**

Bubble Booking is a comprehensive platform that revolutionizes spa management and customer engagement. Its intuitive interface and robust backend empower spas to deliver exceptional service.