**Roles and responsibilities**

**Mykhailo Andriets ID: 29920**   
Programmer(Frontend) & Tester

As a **frontend developer**, he is responsible for the front side of a system:

* Creating architecture of project
* Select technologies used in project
* Implementing business logic features
* Debugging errors
* Improving SEO optimization

As a tester((Focused on UI/UX and Frontend Testing)), he is responsible for testing and evaluating the system`s user interface and visual elements to ensure proper functionality and design consistency:

* Ensuring that UI elements (buttons, menus, forms, etc.) function correctly and align with design specifications
* Checking for responsiveness and adaptability of the interface on different browsers and screen size
* Identifying and reposting usability issues to improve the overall user experience
* Testing interactive elements: form
* Analyzing page load times and identifying elements that may impact performance
* Ensuring proper integration between frontend components and backend APIs.

**Kirill Staroshchuk ID: 29933**Programmer(Backend,K8S) & Head of Tech & Tester

As a **Head of Tech**, he is responsible for overseeing all aspects of the project`s strategy and infrastructure:

* Leading/Mentoring the team of the programmers
* Review Backend/Frontend coder merge requests
* Choosing the technology stack
* Creating architecture for frontend and backend projects
* Ensuring the optimization and efficiency of the existing system
* Taking part in developing both frontend and backend

As a **backend developer**, he is responsible for the back side of a system:

* Creating architecture of project
* Select technologies used in project
* Creating models for DB entities
* Implementing authorization features
* Debugging errors

**As a Kubernetes & DevOps:** - he is responsible fo Containerize application with Docker

* Write Kubernetes manifests (Deployments, Services, Ingress)
* Configure ConfigMaps and Secrets for environment variables
* Deploy and manage Minikube cluster
* Set up Prometheus and Grafana for monitoring
* Implement Rolling Updates, Horizontal Pod Autoscaling, and high availability
* Configure GitHub Actions for CI/CD to build and deploy images

As a **tester((Focused on UI/UX and Frontend Testing))**, he is responsible for testing and evaluating the system`s user interface and visual elements to ensure proper functionality and design consistency:

* Ensuring that UI elements (buttons, menus, forms, etc.) function correctly and align with design specifications
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* Ensuring proper integration between frontend components and backend APIs.

**Oleksandr Miniailo ID: 30079**Programmer(Frontend) & Tester

As a **frontend developer**, he is responsible for the front side of a system:

* Creating architecture of project
* Select technologies used in project
* Implementing business logic features
* Debugging errors
* Improving SEO optimization

As a tester((Focused on UI/UX and Frontend Testing)), he is responsible for testing and evaluating the system`s user interface and visual elements to ensure proper functionality and design consistency:

* Ensuring that UI elements (buttons, menus, forms, etc.) function correctly and align with design specifications
* Checking for responsiveness and adaptability of the interface on different browsers and screen size
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# **Project Overview: Veterinary Clinic Websitefun**

## **Project Goal**

The goal of this project is to create a modern, user-friendly, and highly functional website for a veterinary clinic. This platform will not only serve as a source of information for pet owners but will also streamline the clinic's internal operations, such as appointment scheduling and staff management. The website will offer easy access to a wide range of services, ensuring that both visitors and veterinary specialists can efficiently navigate through the platform. The project will include key features that address both the needs of the clinic’s customers and staff, providing seamless interactions and updates. Ultimately, the goal is to create a reliable online presence that enhances the clinic's reputation while improving communication between the clinic, its staff, and its clients.

## **Project Scope**

1. **Design & Development:**
   * Create an **optimized and functional backend** to provide api for web app
   * Create a **responsive web design** for both desktop and mobile use.
   * Implement a **simple and user-friendly interface** with clear navigation.
   * Develop a **basic online booking form** **and calendar** for appointment requests.
   * Include **contact details, a services page, and a staff page** with mock data.
   * Add a **news or blog section** to showcase updates and educational content.
2. **Technical Aspects:**
   * Use **HTML, CSS, and JavaScript with the following libraries** for front-end development.
   * Use **PostgreSql**, **NodeJs with the following libraries** for back-end development
   * Ensure **basic security measures** like schema validation and authentication.
   * Conduct **testing on different browsers and screen sizes** for usability.
3. **Project Planning & Implementation:**
   * Follow a structured development process.
   * Ensure all features and design elements are completed within the required timeframe.
   * Prepare **documentation** explaining the website's structure, technologies used, and implementation process.

## **User Types**

1. **Visitors:**
   * Users who navigate the website to explore services and make appointments.
2. **Veterinary Staff :**
   * Specialists who would manage appointments, update clinic information, and interact with clients.
3. **Administrators:**
   * Users who have full control over the website. They can manage content, oversee appointments, and handle site settings. Administrators can update services, staff information, and manage user access.

**Functionalities of the Veterinary Clinic Website**

### **1. User Authentication & Access Management**

* **User Registration:** New users can create an account with email and password.
* **User Login:** Secure login for registered users (pet owners, doctors, admins).
* **Password Reset:** Users can reset their password via email verification.
* **Role-Based Access:** Different access levels for pet owners, veterinary staff, and administrators.
* **Secure Authentication:** Implementation of JWT authentication to protect user sessions.

### **2. Appointment Booking System**

* **Online Appointment Requests:** Users can book an appointment from the services page or dashboard.
* **Booking without Account:** Users can book appointments without logging in by providing an ID and basic information.
* **Booking Verification:** Users can retrieve booking details using an ID and a verification parameter (e.g., passport number or email).
* **Doctor Schedule Management:** Veterinarians can manage schedule and appointments
* **Appointment History:** Users can view past and upcoming appointments.
* **Real-time Availability Checking:** The system shows available slots for selected services.
* **Appointment Cancellation & Rescheduling:** Users can modify or cancel upcoming appointments.

### **3. Service Management**

* **Services Listing:** Display of available services with descriptions, prices, and relevant images.
* **Service Details Page:** Dedicated page for each service outlining procedures, benefits, and estimated duration.
* **Direct Booking from Service Page:** Each service page provides a "Book Now" button for quick scheduling.
* **Admin Service Management:** Administrators can add, edit, and remove services.

### **4. Customer Reviews & Testimonials**

* **Review Submission:** Users can leave feedback.
* **Star Rating System:** Users can rate services from 1 to 5 stars.

### **5. Blog**

* **Article Posting:** Admins can add and manage blogs and posts inside each blog.

### **6. User Dashboard (Pet Owner Portal)**

* **User Profile Management:** Users can update their personal and pet details.
* **Appointment History:** Users can track past treatments and future bookings.
* **Billing & Invoices:** Users can view and manage past payments.
* **Pet Medical Records:** Users can access basic health history and vaccination records (if available).

### **7. Admin Dashboard (Clinic Management)**

* **User Management:** Admins can manage pet owner accounts and vet staff access.
* **Appointment Oversight:** Admins can monitor upcoming appointments and make changes if necessary.
* **Payment Processing:** Reviewing transactions and managing invoices.
* **Blog Management:** Admins can create, update, or remove blog posts.

### **8. Veterinary Staff Dashboard (Doctor Portal)**

* **Personal Dashboard:** Veterinarians have access to assigned appointments and relevant notifications.
* **Assigned Appointment Management:** Doctors can view upcoming and past appointments.
* **Medical Records Handling:** Doctors can update pet medical histories and treatment details.
* **Patient Profiles:** Viewing a pet’s history, past treatments, and diagnostic records.
* **Schedule Availability Management:** Setting personal availability for online bookings.

### **9. Security & Performance Optimization**

* **Database Schema Optimization:** Efficient data retrieval and storage methods.
* **Frontend & Backend Performance Optimization:** Implementing caching and load balancing for speed.
* **Cross-Browser Compatibility:** Ensuring smooth functionality across different devices and browsers.
* **SEO Optimization:** Improving visibility on search engines for enhanced discoverability.

## **Extended Page Structure for Veterinary Clinic**

**1. Home Page —** /

* **Quick access to emergency contact.**
* **Overview of services.**
* **Featured blog articles and promotions.**
* **Testimonials preview.**
* **Call to Action (Book Appointment, Contact Now).**

### **2. About Page —** /about

* **Team introduction (veterinarians, assistants).**
* **Mission, values, and story.**

### **3. Services Page —** /services

* **List of all services with descriptions.**
* **Detailed service pages available under**

### **4. Customer Reviews Page —** /reviews

* **Review submission form (star rating, text).**
* **Ratings summary bar (average score, number of reviews).**

### **5. Blog and Articles** — /blog

* **List of articles (shown as simple cards or a list).**
* **Short description for each article (title + 2–3 sentence summary).**
* **"Read More" button to open the full article**

### **6. Contact Page —** /contact

* **24/7 Emergency line highlight.**
* **Map and directions.**
* **Social media**

### **7. Authentication Routes (User Access Management)**

### **Login(SignIn):** /login- User login

### **Register (SignUp):** /register- New user registration

### **Forgot Password:** /forgot-password- Reset password

### **8. User Dashboard (Pet Owner Portal)**

### **User Profile:** /user/profile- View & edit user info, pet profiles.

### **Appointment History:** /user/history- Past appointments & treatments.

### **Schedule (Book Appointments):** /user/schedule- Upcoming appointments & booking.

### **Invoices & Payments:** /user/payments- Billing history.

### **9. Admin Dashboard (Clinic Management)**

### **Admin Dashboard:** /admin/dashboard- Overview of platform activity.

### **Manage Users (Pet Owners):** /admin/users- User account management.

### **Manage Schedule (Global Calendar):** /admin/schedule- Clinic-wide scheduling.

### **Payments & Invoices:** /admin/payments- Review and manage transactions.

### **Blog Management:** /admin/blog- Create/edit/delete blog posts.

### **10. Veterinary Staff Dashboard (Doctor Portal)**

### **Doctor Dashboard:** /doctor/dashboard- Personal dashboard and notifications.

### **View Assigned Appointments:** /doctor/appointments- Upcoming and past assigned appointments.

### **Appointment Details:** /doctor/appointments/:id- Detailed view of a specific appointment.

### **Manage Patients:** /doctor/patients- List of patients under care.

### **Patient Profile:** /doctor/patients/:id- Medical profile, history of a pet.

### **Add/Edit Medical Records:** /doctor/patients/:id/records- Add diagnosis, treatment plans, notes.

**Schedule Availability:** /doctor/schedule - Manage personal availability for bookings.