

Assignments & Project Themes

1. Shakira

Project Theme: Tourism Management System

Project Name: *Choose a creative name* (e.g., WanderHub, TravelEase, Explore360)

Frontend Tech:

- React + Vite + TypeScript
- Tailwind CSS with a vibrant, travel-inspired palette
- Fully responsive (mobile-first)

Backend Tech:

- FastAPI or Django
- PostgreSQL/MySQL

Core Features:

- JWT Authentication
- Destination listings + filters
- Booking system
- Reviews and ratings
- Admin dashboard for tour operators
- Simulated payment integration

Extra Features (Pick 3+):

- Real-time chat
- Interactive maps
- Weather API
- Multi-language support
- PWA (offline mode)
- Recommendation engine

2. Pendo

Project Theme: E-Commerce Platform

Project Name: *Choose a creative name (e.g., ShopNex, MarketHub, QuickCart)*

Frontend Tech:

- React + Vite + TypeScript
- Tailwind CSS with modern e-commerce palette
- Component library (Headless UI or similar)

Backend Tech:

- Django + Django REST Framework
- PostgreSQL

Core Features:

- Authentication
- Product catalog
- Cart and checkout
- Order management
- Admin product panel
- Search and filtering

Extra Features (Pick 3+):

- Real-time inventory
- AI-powered recommendations
- Live order tracking
- Wishlist and comparison
- Social media integration
- Advanced analytics dashboard

3. Poli

Project Theme: Healthcare Management System

Project Name: *Choose a creative name (e.g., MediCare Plus, HealthSync, ClinicHub)*

Frontend Tech:

- React + Vite + TypeScript
- Tailwind CSS with professional healthcare palette
- Accessibility-focused (WCAG compliant)

Backend Tech:

- FastAPI or Django
- PostgreSQL

Core Features:

- Patient registration
- Appointment scheduling
- Electronic health records (simulated)
- Doctor/staff management
- Prescriptions
- Billing system

Extra Features (Pick 3+):

- Telemedicine video calls
- Health monitoring dashboard
- OCR prescription scanner
- Emergency alerts
- Inventory management
- Health analytics

4. Fred

Project Theme: Learning Management System

Project Name: *Choose a creative name (e.g., EduSphere, LearnHub, SkillCraft)*

Frontend Tech:

- React + Vite + TypeScript
- Tailwind CSS with education-focused palette
- Interactive UI components

Backend Tech:

- Django + Django REST Framework
- PostgreSQL

Core Features:

- User roles: Student, Instructor, Admin
- Course management
- Video/content delivery
- Quizzes and assessments
- Progress tracking
- Discussion forums

Extra Features (Pick 3+):

- Live virtual classroom
- AI-powered learning paths
- Gamification
- Certificate generation
- Optional mobile app
- Analytics and reporting

Design Requirements

Color Palettes

- **Tourism:** Vibrant, adventurous (teal, orange, blue)
- **E-commerce:** Trustworthy, action-focused (blue, green, strong CTA colors)
- **Healthcare:** Calm, professional (blue, white, soft green)
- **LMS:** Engaging and focused (purple, blue, yellow accents)

Each intern must ensure:

- Custom color palette
- Light and dark mode
- WCAG 2.1 AA accessibility compliance

Technical Requirements

Frontend (All Projects):

- React 18+, TypeScript
- Vite
- Tailwind CSS
- State management (Context, Redux Toolkit, or Zustand)
- React Router
- React Hook Form + Zod
- Axios or React Query
- Vitest + React Testing Library
- ESLint + Prettier setup

Backend Options:

Option A — Django (Recommended for Pendo & Fred)

- Django 4.2+, DRF
- PostgreSQL
- Simple JWT
- CORS headers

Option B — FastAPI (Recommended for Shakira & Poli)

- FastAPI with SQLAlchemy
- Alembic migrations
- JWT authentication
- Background tasks (Celery/ARQ)
- WebSockets for real-time components

Project Structure

```
project-name/  
├── frontend/  
│   ├── src/  
│   ├── public/  
│   ├── package.json  
│   └── tailwind.config.js  
├── backend/  
│   ├── app/  
│   ├── tests/  
│   └── main.py or manage.py  
└── docker-compose.yml
```

Deployment Requirements

Each intern must deploy:

Frontend:

- Vercel, Netlify, AWS Amplify

Backend:

- Render, Railway, AWS EC2, etc.

Database:

- Supabase, AWS RDS, or any cloud PostgreSQL

File Storage:

- AWS S3, Cloudinary, or similar

Timeline & Deadlines

Final Deadline: Wednesday, 17th December 2026

Project Schedule:

- Planning & Design
- Development
- Testing employment & Documentation
- Video Presentation

Submission Requirements

Submit To: nexvetures@gmail.com

Subject Format: Internship Final Project – [Your Name] – [Project Name]

Mandatory Deliverables:

1. GitHub Repository

- Clean folder structure
- README with overview, setup steps, API documentation, and screenshots
- Proper commit history

2. Live Links

- Hosted frontend
- Hosted backend API
- API docs (Swagger or Redoc)

3. Video Presentation (10–15 min)

- Must show your face
- Demo + code walkthrough
- Challenges and solutions
- Upload unlisted to YouTube or Google Drive

4. Documentation

- Technical documentation
- User manual
- Deployment guide

Evaluation Criteria

Technical Excellence — 40%

- Code quality
- Architecture
- Optimization
- Security
- Testing

Features & Functionality — 30%

- Core features
- Extra features
- UX
- Responsiveness

Documentation & Presentation — 20%

- Video quality
- Explanation
- Documentation

Deployment & Professionalism — 10%

- Successful deployment
- Timeliness
- Attention to detail

Additional Guidelines

Code Quality

- DRY principles
- Error handling
- Reusable components
- Meaningful comments

Security

- Input validation
- SQL injection prevention
- XSS protection
- Secure authentication

Performance

- Lazy loading
- Asset optimization
- Database indexing
- Caching

Best Practices

- Git branching
- Pull request workflow
- Code reviews
- Optional CI/CD

Support & Resources

- React: react.dev
- Tailwind CSS: tailwindcss.com
- Django: docs.djangoproject.com
- FastAPI: fastapi.tiangolo.com

Final Reminder

Deadline: Wednesday, 17th December 2026 — 11:59 PM UTC

Submission Email: nexvetures@gmail.com

Late submissions will not be accepted.

This final project is an opportunity to showcase your full-stack development skills. Deliver your best work.