Southern New Hampshire University

CS 255 Business Requirements Document Template

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System Components and Design

Purpose

- The purpose of this project is to design a system for DriverPass that helps students effectively prepare for and pass their driver's license exams.
- The client, DriverPass, wants an integrated platform for both online practice exams and on-the-road training management.
- The system must provide administrative tools for scheduling, feedback tracking, lesson coordination, and user progress monitoring.

System Background

- DriverPass aims to solve the problem of high failure rates—currently over 65%—among students taking driving exams.
- Many students rely on outdated test prep methods; DriverPass wants to offer modern tools for both learning and skill practice.
- The proposed system will include multiple components:
    - Online exam and quiz modules
    - Scheduling systems for on-the-road lessons
    - Instructor dashboards
    - Student progress tracking
    - Secure user accounts and role management

Objectives and Goals

- Provide students with realistic practice exams aligned to current DMV standards.
- Support secure lesson booking and instructor assignment.
- Allow staff to manage training packages and customer information.
- Enable trainers to provide personalized feedback on lessons.
- Track student progress across both written and driving training.
- Achieve measurable improvement in student pass rates.

Requirements

Nonfunctional Requirements

Performance Requirements

- System must be web-based and accessible via desktop and mobile devices.

- Pages should load in under 3 seconds under normal usage.
- The system should be updated quarterly to accommodate DMV changes and technical improvements.

Platform Constraints

- System must be compatible with Windows, macOS, and common mobile platforms (iOS and Android).
- Back-end should support integration with databases for user data (e.g., MySQL, PostgreSQL).
- APIs may be used for third-party calendar or email integrations.

Accuracy and Precision

- User roles will be distinguished by secure logins and assigned permissions.
- Input will be case-sensitive for usernames and secure forms.
- Errors and exceptions should be reported instantly to system admins via alerts.

Adaptability

- Admins must be able to add or remove users and modify packages without direct code changes.
- The system should adapt automatically to browser updates and OS changes through responsive design.
- IT admins require full access for account recovery, role management, and audit logging.

Security

- User login will require unique credentials with multi-factor authentication for administrative users.
- All client-server communication will be encrypted using HTTPS and SSL protocols.
- After five failed login attempts, an account will lock for 15 minutes and notify the admin.
- Password reset functionality will be available with email verification and recovery questions.

Functional Requirements

- The system shall allow users to create student accounts and register for training.
- The system shall validate user credentials when logging in.
- The system shall allow students to book, reschedule, and cancel driving lessons.
- The system shall match students with available instructors and vehicles based on scheduling.
- The system shall allow trainers to enter feedback after lessons.
- The system shall provide students access to practice exams and quizzes.
- The system shall generate reports for staff regarding lesson attendance and student progress.
- The system shall allow package creation and modification by administrators.
- The system shall track completion status for both written and road training sessions.

User Interface

- The interface must be intuitive for non-technical users including students, parents, and admin staff.
- Users:
  - **Students:** View schedules, take exams, check feedback.
  - **Trainers:** Manage lessons, submit feedback.
  - **Admins:** Create accounts, modify packages, reset passwords.
  - **Owner/Management:** View reports and system-wide stats.
- Users will interact via browser or mobile-friendly interface. Responsive design is required.

Assumptions

- Users have access to modern web browsers and reliable internet connections.
- Students and trainers will have basic familiarity with online platforms.
- The system will not require integration with external DMV databases during initial launch.

Limitations

- System is limited to training management and practice exams—it does not handle actual DMV exam scheduling.
- Budget constraints may limit advanced analytics or third-party integrations during initial phase.
- Development resources are scoped to a small consulting team; timelines must be realistic.
- Certain features (e.g., gamified simulation modules) may be postponed for future updates.

Gantt Chart

Task	Start Date	End Date	Duration	Dependencies
Requirements Gathering	Week 1	Week 1	1 week	—
Stakeholder Interviews	Week 1	Week 2	2 weeks	Requirements Gathering
Process Model Design	Week 2	Week 3	2 weeks	Stakeholder Interviews
Object Model Design	Week 3	Week 4	2 weeks	Process Model Design
System Architecture Planning	Week 3	Week 4	2 weeks	Requirements & Models
Prototype Development	Week 4	Week 5	2 weeks	Architecture & Modeling
Testing and Iteration	Week 5	Week 6	2 weeks	Prototype
Final Review and Documentation	Week 6	Week 6	1 week	All tasks completed