Interface Design and Development

Distinction and High Distinction Task 6.2
Custom Web Application

1. Overview

This assignment aims to demonstrate your capability in crafting a high-quality web application by effectively integrating and utilizing the Bootstrap and VueJS frameworks. You are required to exhibit exceptional programming and design standards, showcasing your ability to develop sophisticated and well-architected web solutions.

2. Requirements

You have the freedom to select the theme of your application, such as an e-commerce site, Event Management System, Educational Course Platform, or Real Estate Listing Website. You are not limited to the themes mentioned above; feel free to choose others.

Regardless of the theme you choose, your application must meet the following technical and functional requirements. **Additionally, you must integrate further functionalities and features to ensure that your application operates effectively and provides real-world utility.**

2.1 Technical Requirements

Your app must incorporate the following technical aspects:

- Implement a responsive design using the row-column grid system to effectively organize content and layout.
- Utilize VueJS components, routers, and custom directives to build a modular and maintainable codebase.
- Demonstrate skilled use of arrays for dynamic data handling.
- Implement core VueJS directives such as v-bind, v-model, v-if, v-for, and v-on to create interactive and reactive UIs.
- Utilize forms with data validation.
- Adhere to a mobile-first approach, ensuring your application is fully responsive across at least three device sizes.
- Prioritize accessibility in input forms and tables to ensure usability for all users.

- Apply HTML5 coding conventions consistently, including proper case usage and indentation for readability and professionalism.

If you are aiming for an HD (High Distinction) grade, you must also include these additional aspects:

- Utilize methods and computed properties.
- Use pagination.
- Incorporate data from external sources or data APIs.

2.2 Functional Requirements

Your app must incorporate the following functional aspects:

- Implement features for user registration, login, and differentiation in content visibility between authenticated and unauthenticated users.
- Include capabilities for all users to search for content and use filters to refine results.
- Integrate social functionalities, such as liking or voting on content.

If you are aiming for an HD (High Distinction) grade, you must also include these additional aspects:

- Allow authorized users to create, edit, and delete content.
- Maintain some form of persistent data, through a backend database, JSON files, and so on.

3. Submission

- All source code files for your application.
- A project report, including a brief overview of your app's functionality, technical aspects, and innovative features.
- A short video demonstrating your app and briefly explaining the implementation of the part of the app you are most proud of. The video should be less than 3 minutes long.

Marking Rubric (100 points)

Criteria	Excellent (15-20 points)	Good (10-14 points)	Satisfactory (5-9 points)	Needs Improvement (0-4 points)
Technical Requirements (20 points)	Full implementation of all technical specifications with advanced features. Work is error-free, shows innovative problem solving, and excellent proficiency.	Most specifications are met with high quality; minor errors or omissions might be present. Advanced features are attempted.	Some key specifications are met, but there are notable deficiencies and missing elements.	Fails to meet basic technical specifications. Major errors and multiple missing elements.
Functional Requirements (20 points)	All functional requirements are excellently met, including advanced functionalities for user interaction, data management, and security.	Meets most functional requirements effectively but may lack some advanced functionalities. Minor issues in functionality.	Meets some but not all functional requirements. Major features may be missing or poorly implemented.	Only basic functionalities are present, with significant shortcomings and missing key features.
Real-World Utility and Functionality (20 points)	The application includes multiple innovative features that significantly enhance its utility in real-world scenarios. These additions are well-integrated and fully functional, clearly demonstrating a strong understanding of user needs and practical applications.	The application includes useful features that enhance its real-world applicability, with most features well integrated and functioning properly. Some minor issues may exist, but overall, the utility is clear and effective.	The application has some additional features that provide utility, but these are either not fully integrated or only partially useful in real-world contexts. Improvements are noticeable but limited in scope.	The application lacks significant additional features that enhance real-world utility, or the features included are minimal and poorly integrated, offering little to no practical benefit.
Project Report (20 points)	Comprehensive and detailed, excellently structured, and offers deep insights into the project's development, challenges, and solutions.	Thorough with minor omissions, clearly structured, covers most aspects of the project.	Some essential information is included, but lacks depth or contains several errors. Structure and clarity are below expectations.	Lacks critical information, poorly structured, and does not convey a clear understanding of the project.
Video Demonstration (20 points)	Highly effective demonstration, exceptionally clear, and creatively explains the application's best features and technical sophistication.	Effective demonstration that covers most features with good clarity and presentation.	Basic demonstration, includes essential features but lacks clarity or engagement. Significant details are missing.	Minimal effort, unclear demonstration, lacks coherence, and significant features are not demonstrated.