# CS 255 Module Two Assignment Template

## Functional Requirements

| **Functional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| School Administration | As an Admin, you can share management and edit a list of admins. Add other roles. | *User Roles | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/users/roles/ |
| Course Creation | Courses hold subject curriculum and allow for student enrolment. | *Courses | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/users/courses/ |
| Coaches | Can review tasks and submissions of students. | *Coaches | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/users/coaches/ |
| Curriculum Editing | Allows for an organized approach towards shaping curriculum by organizing content into levels. | *Curriculum Editor | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/users/curriculum\_editor/ |
| Student | The system allows for editing student info. | *Students | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/users/students/ |
| Communities | Students, admins, and coaches can interact using a social media platform. | *Communities | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/users/communities/ |

## Nonfunctional Requirements

| **Nonfunctional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
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| Uses Hosting and Containerization | Using Heroku a popular Web hosting solution and containerization Pupilfirst can be served anywhere in the world. | *Deploying to Heroku | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/heroku/ |
| Security using token-based authentication. | Pupilfirst LMS uses a GraphQL API to enable typed communication between the ReScript front-end code and the Rails server. A few of these GraphQL queries and mutations can be accessed using token-based authentication. | *GraphQL API | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/graphql/ |
| Support for multiple platform development environments. | Development environments can be set up on macOS, Ubuntu, and Windows 11 systems. | *Development Setup | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/development\_setup/ |
| File Storrage via AWS S3 | AWS S3 file will hold and serve user-uploaded information. | *Configuration | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/configuration/ |
| Front End via ReScript & React. | Rescript and React provide the front-end components of Pupil- First. These are well-respected front-end solutions in the industry. | *Introduction for Developers | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/ |
| Repo-level access and great documentation. | The system can be customized to provide unique and competitive solutions. Repo is on GitHub, allowing the dev team to understand the under-the-hood operation. This will be useful in forming a custom security solution which is a vital action when using token-based authentication solutions. | *GitHub – pupil first/pupil first: A learning management system (LMS) that lets you run an asynchronous online school, where learning is achieved through focused tasks, directed feedback, an iterative workflow, and community interaction.* (n.d.-b). GitHub. Retrieved November 5, 2022, from https://github.com/pupilfirst/pupilfirst |

## Assumptions

| **Assumption** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| The system is going to operate based on Website information, developer count, and GitHub repo. Have not actually seen a working demo of the product. | A lot of the time GitHub Repos tend to fail you in some respect. Going off the word of a corresponding web page is dangerous I would get in contact with the repo owner to try and demo the product. | *GitHub – pupil first/pupil first: A learning management system (LMS) that lets you run an asynchronous online school, where learning is achieved through focused tasks, directed feedback, an iterative workflow, and community interaction.* (n.d.-b). GitHub. Retrieved November 5, 2022, from https://github.com/pupilfirst/pupilfirst |
| Assuming the product will be easy to use for the end user. | Once again going off the web page and without demoing we are assuming the product will be intuitive for the user and end users. |  |

## Limitations

| **Limitation** | **Rationale for Requirement** | **Source(s), APA format** |
| --- | --- | --- |
| Using a system, we have to deploy ourselves rather than a working solution already in place. | To use this system, we will have to deploy it ourselves. Where there could be other systems that are provided without having to delve into a complex set of packages that requires deployment. | *Deploying to Heroku | Pupilfirst LMS*. (n.d.). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/heroku/ |
| Uses Docker images, Ruby On Rails, ReScript & React. | These systems are all quite specialized the development team will require developers who know these technologies well and can expertly work with them to ensure uptime and a smooth end-user experience. | *Introduction for Developers | Pupilfirst LMS*. (n.d.-b). Retrieved November 5, 2022, from https://docs.pupilfirst.com/developers/ |