

Web Development Using Application Frameworks

Instructions for the Framework Evaluation Paper

Overview

The subject of your Framework Evaluation Paper should be the suitability of a candidate Web framework (other than Django) for an identified set of functional and non-functional requirements. The set of requirements that you choose to address can reflect the demands of any realistic work environment. This includes actual work environments that you have personally experienced, or work environments that you anticipate experiencing in the future.

Exercise 1 (Required)

In this required portion of the paper, you should evaluate a server-side application framework for Web development.

Exercise 2 (Optional Challenge Exercise)

If you choose to do this optional part of assignment, you should also include an evaluation of a client-side Web framework for Web development. In this case, you will be evaluating the client-side framework and the server-side framework as a matched pair.

Expected Content

Your paper should begin by identifying the requirements that you will be expecting your chosen framework(s) to satisfy. These include both functional and non-functional requirements.

Most functional requirements can be addressed well by most Web frameworks. User stories or use cases that can be enabled by a dynamic Web application can be supported by most frameworks. The type of functional requirements that are particularly important when choosing Web frameworks are those that require well-established functional features like user-controlled content management, blogging, chat, or digital asset management. Many frameworks have direct support for this type of functionality. Or, if the functionality is not available in the framework itself, then it is available in a well-established project or product that is based upon the framework. Good examples of this are the user-controlled content management features that are part of [Django-CMS](#) and [Wagtail](#). These are two very popular open-source content management systems based on [Django](#). An ability to add custom functionality on top of higher-level content management functions could represent a significant advantage for one framework over other potential framework choices.

In addition to the significant functional requirements, your paper should also address the significant non-functional requirements (https://en.wikipedia.org/wiki/Non-functional_requirement). These may include:

- Usability
- Reliability
- Performance
- Supportability

Often, system developers make the mistake of addressing these non-functional requirements only as an afterthought. Yet these requirements have a big impact on whether the system developed is seen as a success or failure in the eyes of the stakeholders.

In summary, your paper should address the following:

1. What are the functional requirements that you believe are most important when choosing a Web framework for your circumstances?
2. What are the non-functional requirements that you believe are most important when choosing a de Web framework for your circumstances?
3. Discuss the suitability of the candidate Web framework(s) considering the evidence and opinions that you found during your research.
4. Present an overall conclusion regarding the suitability of the Web framework(s) for the functional and non-functional requirements described in your paper.

Length and Style

If you are only doing Exercise 1, the body of your paper should be 1,500 to 2,000 words in length. Text that is part of front matter (title pages, tables of contents) or back matter (lists of resources cited, appendices) will NOT be counted toward the word count measurement.

If you are both Exercise 1 and Exercise 2, the body of your paper should be 2,000 to 2,500 words in length. Text that is part of front matter (title pages, tables of contents) or back matter (lists of resources cited, appendices) will NOT be counted toward the word count measurement.

Your paper should be a typewritten document that is either single or double-spaced. Please follow normal writing conventions for graduate student papers. Your document should be well-organized. Your language should be well-chosen. Please pay attention to the rules of proper grammar, spelling and punctuation. You must use one of the generally accepted citation and reference styles (APA, MLA, etc.).

Sources

Your paper should cite at least 10 different sources. While these sources should be authoritative, they need not be published articles from scholarly or scientific journals. Often, when evaluating Web application frameworks, you will need to sort through conflicting opinions in promotional material, blogs, forums, etc. Even articles published in trade publications may present obvious opinion without much justification. Your job is to sort through these potentially conflicting claims as best you can, presenting your conclusion, while giving a fair account of the diversity of opinion that you encountered. As indicated above, citation and reference should follow one of the accepted styles (APA, MLA, etc.).

Format

Submit 1 PDF document. Please DO NOT ZIP THIS FILE.

File Naming Conventions

Please note that the filename of the submitted document must be in all lower case. Deductions will be made for submissions that do not follow this standard.

Please use the following naming scheme for your file:

surname_givename_framework_evaluation_paper.pdf

If this were my own paper, I would name my file as follows:

trainor_kevin_framework_evaluation_paper.pdf

Submission Deadline

The submission deadline and Moodle submission activity to which the assignment should be submitted will be indicated in the Weekly Schedule.

Grading

A separate grading rubric document will be posted to the Weekly Schedule.

Last Revised

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