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Group 7

CECS 490A

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### Comparison of Web Frameworks for Our Project Website

Note that this decision is not final, since we will not officially be starting to build our website until CECS 490B which is the second semester.

A web framework (or web application framework) is a collection of software that facilitates the creation of websites and web applications (webapps). Web frameworks include many different features to aid programmers in creating their websites, such as out-of-the-box database management, secure user authentication, and scalability to create almost any type of website. We will be using a web framework for our website.

In picking a web framework for the team to use, I used three criteria: the license, the language it uses, and the scalability. If the web framework was in any way fully or in part proprietary, it is not suitable for our project. This is done to avoid any licensing fees or copyright infringements in building our website. The language used is important, as well. Since we don't have all the time in the world, our team would like to use a language we are already very familiar with, to help speed up the process of building the site. Consideration will be given to frameworks that use a similar language to ones common to that of the team. The last condition is difficult to define, but essentially the framework should be able to answer the following questions: does the framework have everything we need? What if we need more? Will the framework be able to keep up with our demands as we build our project? How easy is it to build with this framework?

Fitting these three criteria, I picked Django as our web framework of choice. Django is licensed under a permissive BSD license. It uses Python, which is a language all of us know.

Django comes out of the box with authentication systems and online security features. It has a large userbase, so we will have no problem getting it set up.

One other option I considered was Flask. Flask is licensed under a permissive BSD license as well, and also uses Python. A large difference between the two web frameworks is that Flask does not come out-of-the-box with all the packages that Django does. However, a the tradeoff here is that Flask is much easier to use, and much less goes into developing with Flask. Since the whole team is a beginner at web developing, perhaps we will end up switching to Flask later on if we find Django too confusing to work with.