Language Website

Issued: Tuesday, April 1
Due: Tuesday, April 22

There are two parts to this homework assignment. The first part asks your team to begin developing a simple website for the programming language of your choice. The second part asks your team to continue developing its website, by adding a larger demonstration program, and sharing its content with the class, in an oral presentation.

Part 1: Website

Your Team's Landing Page

A webspace for your team has been established at:

> `csweb.boisestate.edu:/home/JBuffenb/public_html/`
> `classes/354/teams/`*team*

Notice that this machine is *not* part of the `onyx` cluster! Furthermore, due to network constraints, `csweb` cannot be reached from the public Internet. However, it can be reached from `onyx` (or its nodes). So, you can SSH and login to `onyx`, then SSH and login to `csweb`.

Your web browser *can* directly access this space, via the URL:

> `http://csweb.boisestate.edu/~jbuffenb/classes/`
> `354/teams/`*team*

The purpose of your team's space is to describe and demonstrate your team's programming language, to a beginning or intermediate programmer.

Assignment

There are several subparts:

- Meet with your team and choose a couple of candidate programming languages.
- Send me an email with your proposed language. I will reply with an approval email, unless too many teams have already chosen that language. Repeat this step, until we have decided on a language.
- Plan the structure of your site. For example:
  - description and history
  - links to specification, documentation, manuals, and tutorials
  - available translators and installation instructions
  - introductory programs (e.g., hello world), with build/run instructions
  - more complex example programs, with build/run instructions
  - tabular comparison of characteristics and features, with respect to other (representative) languages
- Build your site.

You don't need to `submit` your website. I will grade it in place.

Hints and Advice

Choose a language that no one on your team already knows well. Rather, choose a language that you and your teammates would like to learn about. For example, any of the homework languages would have been acceptable: they are important languages, which you may have heard of, but they were (hopefully) new to you.

Consider choosing a language from the "sum" examples, in our `pub` directory.

Choose a language for which you can obtain a translator. It does not have to run on the `onyx` cluster, but you will need to develop and demonstrate example programs. I can help build/install translators on the `onyx` cluster.

Develop your *own* examples. Do not just copy examples from the Internet. You are expected to learn the language. Each team member should develop several original examples.

Part 2: Team Program and Presentation

Assignment

There are several subparts:

- Meet with your team and choose a reasonably complex problem to solve, using your team's programming language. The problem should be at least as difficult as one of the language problems in our homework assignments, but not too difficult.
- Partition the problem among your team's members, so everyone has about the same amount of work to do.
- Develop and integrate your solution.
- Describe your experience to the class in a short oral presentation. Each team will present, as a team, for about 30 minutes, during the last few class-meeting periods.

You don't need to `submit` your presentation. I will grade it as it happens.

Hints and Advice

Choose a problem that is appropriate for your programming language. For example, you wouldn't want to use Prolog to a control a dishwasher.

Your presentation should:

- briefly introduce your language
- specify your problem
- describe your experience solving the problem