

Ames Brewers League Website

<http://www.amesbrewersleague.org>

About

This repository includes code for the Ames Brewers League website. The website's purpose is to inform potential new members about the group as well as provide a medium for meeting minutes and competition results to be shared.

Bootstrap 4 was used for most of the styling. Competitions data is stored as an Excel file and converted to JSON data files for use on the website. This is performed by the Python script "to_json.py". JavaScript is used to render the data on the webpage. Minutes are stored as PDF files to be viewed in the browser.

Meetings take place monthly and the website is updated when those meeting minutes are available.

File transfer to the web server is also automated using Python ("ftp.py").

Getting Started

In order to update the website automatically as intended, you need to use Python. Python is a programming language. Python files (or scripts) are text files ending in ".py" and contain Python code, as you will find in "to_json.py", for example. In order to run the code in the files, a Python interpreter along with a few 1st and 3rd party "libraries" of code are required. Download and install Python (version ≥ 3.9) from "<https://www.python.org/downloads/>". Be sure to download the installer appropriate for your operating system. When installing Python, be sure to check the box that adds Python to your "PATH" environment variable. This will allow you to run Python files from the command prompt without having to specify the location of the interpreter. Installing Python will provide access to the interpreter and its "standard libraries" of code.

Windows 10

1. Install Python as described above.
2. Navigate to this directory. Click in the address bar and copy the text.
3. Click in the search textbox in the taskbar. Search for "cmd" and press enter or click on "Command Prompt". This will open up the basic Windows shell software, using which we can install the code libraries needed.
 1. In Command Prompt, type the following commands and press "Enter" to execute them.
 2. "cd " and paste the file path copied above before executing - This will change the working directory to this directory.
 3. "python -m venv venv" - This will create a "virtual environment" in the folder, which will allow us to the install the 3rd party code packages locally to this project and not pollute the global environment. If it doesn't recognize "python", you may have forgotten to add Python to the "PATH" environment variable.
 4. "venv\Scripts\activate" - This will activate the virtual environment. You should now see "(venv)" at the beginning of the command prompt line.
 5. "pip install -r requirements.txt" - This will install the required code libraries.

4. You are now ready to update the site.

Updating the Site

Following are instructions for making monthly updates to the website.

Windows 10

1. Save the meeting minutes as a PDF file in "www\static\minutes". Name the file as "YYYY-MM.pdf" (e.g. "2021-06.pdf" for June 2021). This style is necessary for the Python file to properly parse the date.
2. Update the Excel file, "data.xlsx", with any competitions, competition entries, or brewers as necessary. Note that the dropdown for brewers in the "Entries" tab pulls from the "Brewers" list, so add any new brewers first.
3. Make any updates necessary to the HTML, CSS, or JavaScript files. This can be done with a basic text editor like "Notepad" or software with more features like syntax highlighting, such as "Visual Studio Code" (<https://code.visualstudio.com/download>). To open the file in Notepad, right-click on the file and hover over "Open with...". If Notepad is available, select it; otherwise, select "Choose another app" and find Notepad.
4. Navigate to this directory. Click in the address bar and copy the text.
5. Click in the search textbox in the taskbar. Search for "cmd" and press enter or click on "Command Prompt". This will open up the basic Windows shell software, where we can run the Python scripts.
 1. In Command Prompt, type the following commands and press "Enter" to execute them.
 2. "cd " and paste the file path copied above before executing - This will change the working directory to this directory.
 3. "venv\Scripts\activate" - This will activate the virtual environment. You should now see "(venv)" at the beginning of the command prompt line.
 4. "python to_json.py" - This will run the Python script that creates data files from the Excel file. It should print a statement saying that files were successfully created.
 5. "python ftp.py" - This will run the Python script that transfers files from the "www" local folder to the web server. It should print a statement saying that files were successfully transferred.
6. Open up the webpage and confirm that changes took effect. You may need to clear the cache to see changes, which in Google Chrome can be done by holding "Ctrl" and clicking the refresh icon at the top left of the browser.

Maintenance

One thing to be aware of is that the website files are uploaded to the web server using "FTP", which stands for "file transfer protocol". This method requires the domain name, a username, and a password. These items are stored in the Python file "secrets.py" and imported by the "ftp.py" script when it runs. If the domain name or credentials change, it will be necessary to change those items in this file. This can be done with a basic text editor like "Notepad". To open the file in Notepad, right-click on the file and hover over "Open with...". If Notepad is available, select it; otherwise, select "Choose another app" and find Notepad.

While I developed the Python program to make monthly updates efficient, you can also manage server folders and files manually with software such as FileZilla (<https://filezilla-project.org/>).

Dependencies

The following CSS and JS libraries are loaded via "CDN", or "content delivery network", in the index.html file, and are required for the website to look and behave as intended. Older or newer versions may work as well.

- Bootstrap 4.3.1
- jQuery 3.3.1