

Deliverable 2

Link to GitHub Repository

<https://github.com/tetruong/Portal2.0>

Development Decisions

1. Development will be done in React.js, HTML5, CSS

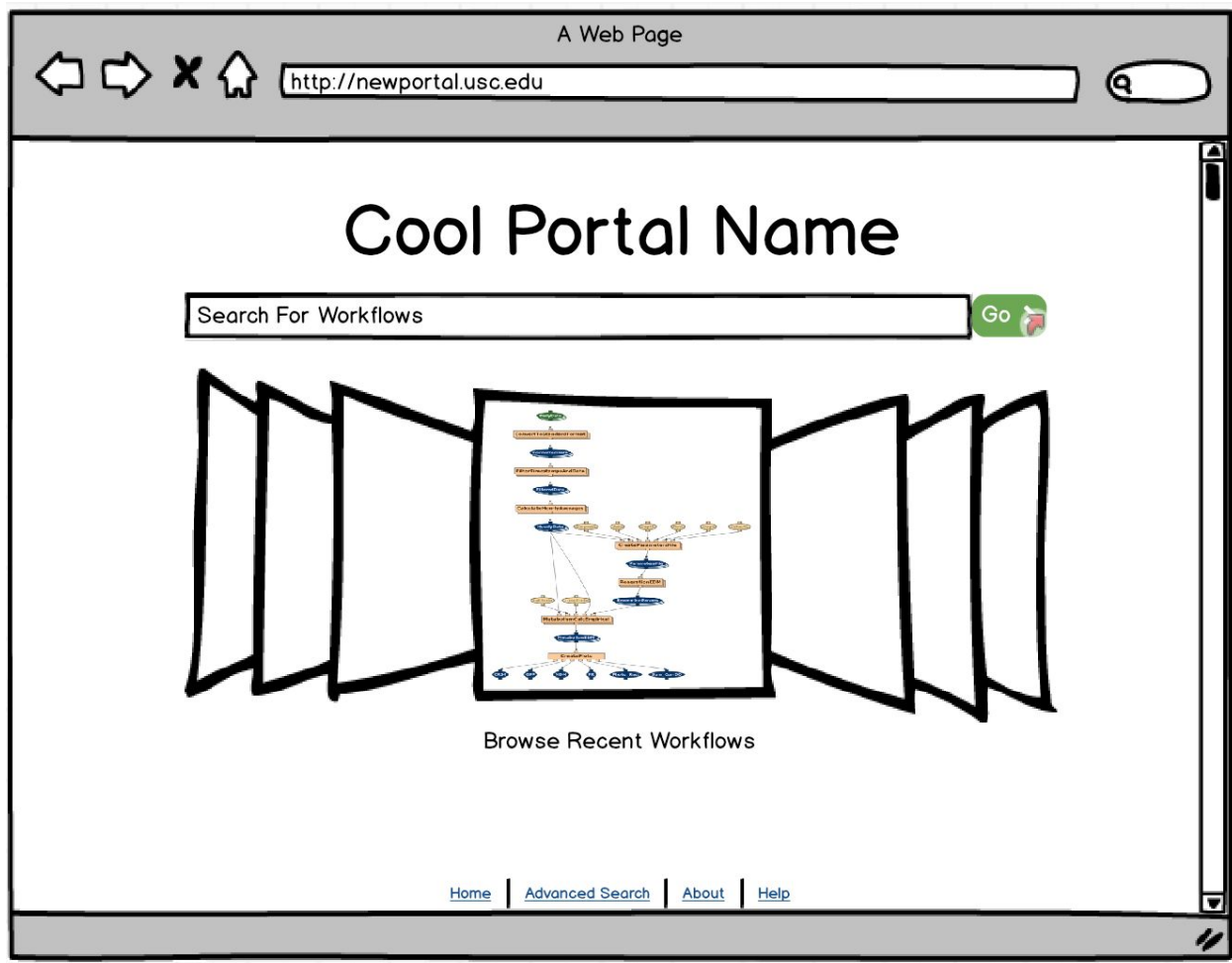
List of Main Functionalities

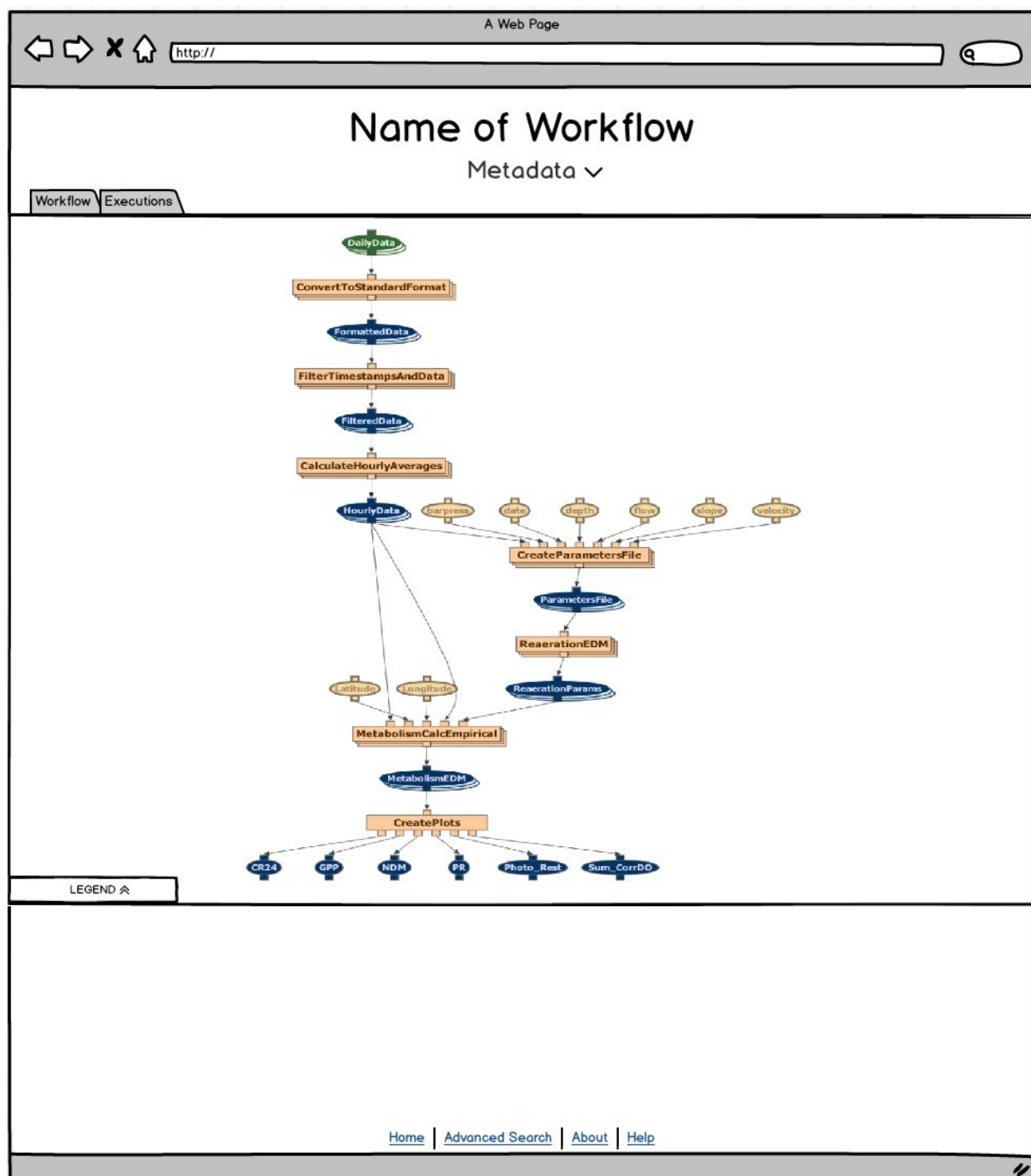
1. Search bar with auto-complete
2. Visualization of workflow using D3.js
3. Modularity of coding patterns to allow for queries and visualizations to be easily made in future
4. Ability to highlight inputs and outputs of a selected process
5. Zoom in on workflow graph
6. View legend for workflow graphs
7. Selected/clicked content from graph expands a box below the graph with more information.
 - a. Clicking on another graph node pushes down previous boxes to insert a new box of information. Limited to 4 boxes on the screen at once.
 - b. User can remove, expand, and collapse boxes.
8. Tab to view separate executions
 - a. Click on specific execution to view status, start/end times, rights, etc.
 - b. Dropdown menu to allow user to view different executions (based on date)

Goals for Next Week

- General UX/UI of site developed
 - Can be hard-coded to illustrate general look and feel of page
 - Pages of site include: home page and workflow page
- Begin working on visualization of hard-coded data made in D3.js

Mockups
Homepage





After Clicking on Metadata Dropdown

A Web Page

http://

Stemming

Metadata ▾

Status: SUCCESS
Label: Execution account created on 1383027155436
End Time: 2012-05-24T20:05:20Z (xsd:dateTime)
Start Time: 2012-05-24T20:05:07Z (xsd:dateTime)
Log File: http://wind.isi.edu/marbles/assets/components/workflow_portal/users/1/Water/runs/run_149.ttl

Dataset

Words

StopWords

Removed

Size

SmallWords

Removed1

Workflow - after a yellow box (process) is selected, legend expanded

http://

Name of Workflow

Metadata ▾

Workflow Executions

```
graph TD; DailyData([DailyData]) --> ConvertToStandardFormat[ConvertToStandardFormat]; ConvertToStandardFormat --> FormattedData([FormattedData]); FormattedData --> FilterTimestampsAndData[FilterTimestampsAndData]; FilterTimestampsAndData --> FilteredData([FilteredData]); FilteredData --> CalculateHourlyAverages[CalculateHourlyAverages]; CalculateHourlyAverages --> HourlyData([HourlyData]); HourlyData --> CreateParametersFile[CreateParametersFile]; HourlyData --> MetabolismCalcEmpirical[MetabolismCalcEmpirical]; HourlyData --> CR24([CR24]); HourlyData --> GPP([GPP]); HourlyData --> NDM([NDM]); HourlyData --> PR([PR]); HourlyData --> Photo_Rest([Photo_Rest]); HourlyData --> Sum_CorrDO([Sum_CorrDO]); CreateParametersFile --> ParametersFile([ParametersFile]); ParametersFile --> ReaerationEDM[ReaerationEDM]; ReaerationEDM --> ReaerationParams([ReaerationParams]); ReaerationParams --> MetabolismCalcEmpirical; MetabolismCalcEmpirical --> MetabolismEDM([MetabolismEDM]); MetabolismEDM --> CreatePlots[CreatePlots]; CreatePlots --> CR24; CreatePlots --> GPP; CreatePlots --> NDM; CreatePlots --> PR; CreatePlots --> Photo_Rest; CreatePlots --> Sum_CorrDO;
```

LEGEND ▾

- Input Data Variable
- Output/Intermediate Data Variable
- Parameter Variable
- Process

Name of Selected Process ✕

☐ Highlight Inputs ☐ Highlight Outputs

Status: -

Start Time: -

End Time: -

Rights: -

Input Variables

- input var 1
- input var 2
- input var 3

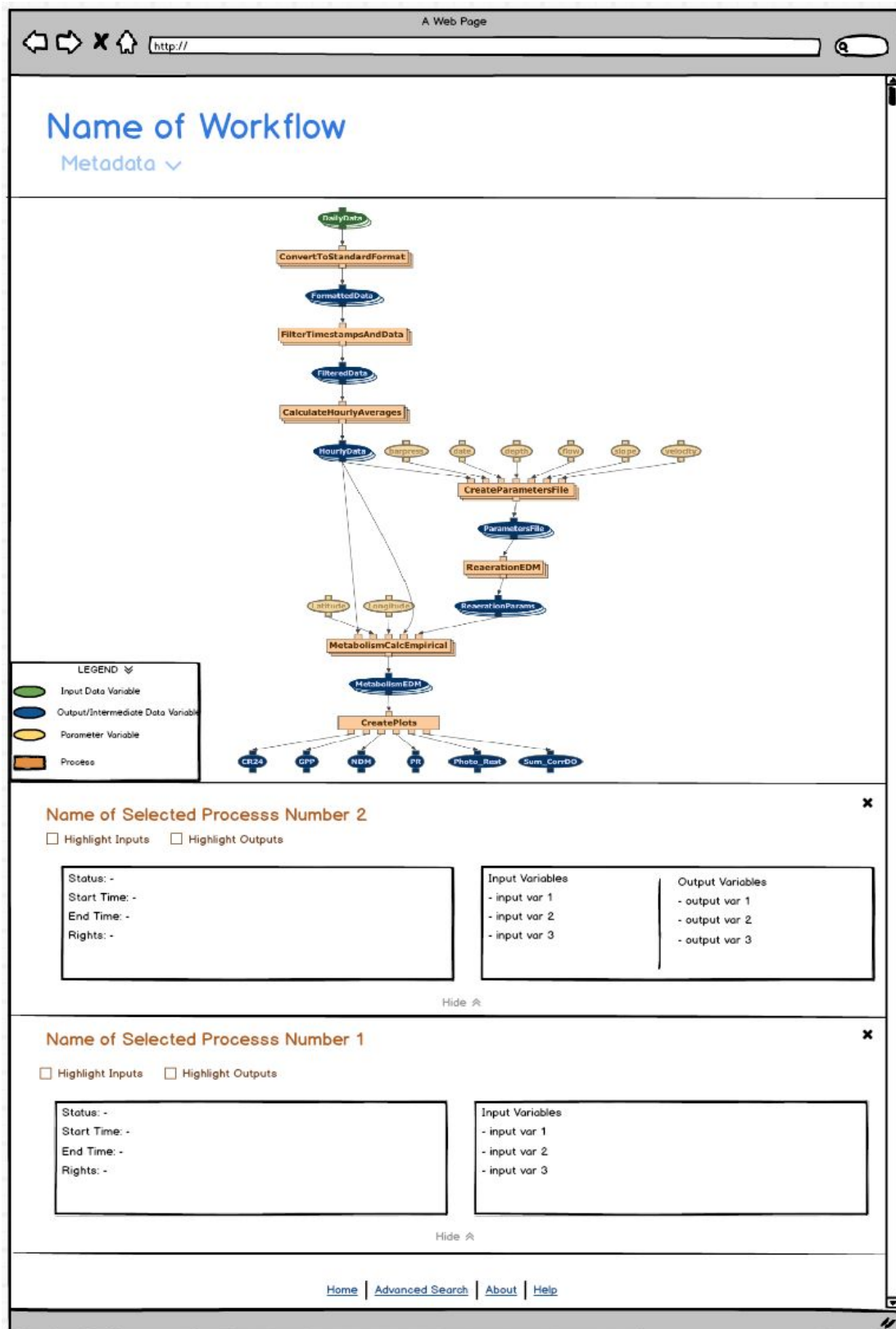
Output Variables

- output var 1
- output var 2
- output var 3

Hide ⤴

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Workflow - after a second yellow box (process) is selected, legend expanded



Executions Tab

A Web Page

http://

Q

Name of Workflow

Metadata ▾

Workflow

Executions

Execution, created on Jan. 23, 2017 ▾

```
graph TD; DailyData((DailyData)) --> ConvertToStandardFormat[ConvertToStandardFormat]; ConvertToStandardFormat --> FormattedData((FormattedData)); FormattedData --> FilterTimestampsAndData[FilterTimestampsAndData]; FilterTimestampsAndData --> FilteredData((FilteredData)); FilteredData --> CalculateHourlyAverages[CalculateHourlyAverages]; CalculateHourlyAverages --> HourlyData((HourlyData)); HourlyData --> CreateParametersFile[CreateParametersFile]; HourlyData --> MetabolismCalcEmpirical[MetabolismCalcEmpirical]; CreateParametersFile --> ParametersFile((ParametersFile)); ParametersFile --> ReaerationEDM[ReaerationEDM]; ReaerationEDM --> ReaerationParams((ReaerationParams)); MetabolismCalcEmpirical --> MetabolismEDM((MetabolismEDM)); MetabolismEDM --> CreatePlots[CreatePlots]; CreatePlots --> CR24((CR24)); CreatePlots --> GPP((GPP)); CreatePlots --> NDM((NDM)); CreatePlots --> PR((PR)); CreatePlots --> Photo_Rec((Photo_Rec)); CreatePlots --> Sum_ConCO2((Sum_ConCO2));
```

The workflow diagram illustrates a data processing pipeline. It begins with 'DailyData' (green oval), which flows into 'ConvertToStandardFormat' (orange rectangle). This is followed by 'FormattedData' (blue oval), 'FilterTimestampsAndData' (orange rectangle), and 'FilteredData' (blue oval). The next step is 'CalculateHourlyAverages' (orange rectangle), which leads to 'HourlyData' (blue oval). From 'HourlyData', the flow splits: one path goes to 'CreateParametersFile' (orange rectangle), which then leads to 'ParametersFile' (blue oval), 'ReaerationEDM' (orange rectangle), and 'ReaerationParams' (blue oval). The other path from 'HourlyData' goes directly to 'MetabolismCalcEmpirical' (orange rectangle). 'MetabolismCalcEmpirical' also receives input from 'Latitude' and 'Longitude' (orange ovals) and leads to 'MetabolismEDM' (blue oval). Finally, 'MetabolismEDM' flows into 'CreatePlots' (orange rectangle), which produces six outputs: 'CR24', 'GPP', 'NDM', 'PR', 'Photo_Rec', and 'Sum_ConCO2' (all in blue ovals).

LEGEND ⌵

Start: 1/22/2017
End: 1/23/2017
Status: SUCCESS
Rights: <http://creativecommons.org/licenses/by-sa/3.0/>
Template: <http://www.opmw.org/export/resource/WorkflowTemplate/STEMMING>

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