# Notes

To Do Install git command line, the posh git

To Do Test out the created box

To Do Install git on system

To Do Change parameter class

To Do Setting up normal Python files?

To Do Remove apostrophe's from SQL statements

To Do Add new schedule, created Unassigned type

To Do Import test schedule

To Do Handle blank rows - create a blank class, this may not be better though!

To Do Db indexes

To Do Small differences are due to 3 decimal places in parameters so reimport data

To Do Applied for github researcher discount, wait a few days

To Do Sort out string concatenation

To Do Get the results for the new schedule - set the ~~same location~~, ~~working days~~ and ~~start date~~

To Do Change back functions to return None?

To Do Test out the error handling

To Do Change location in the database to -0.9

To Do Organise folders, use git mv

To Do Loop does not continue to the next activity properly

To Do Set up machine and get an DVI-D to HDMI adaptor

To Do Check the unassigned code

To Do Need to change the loop dayOfYear does nothing now

To Do Test method again

To Do Loop needs to restart on 365 - follow the dates instead

To Do Retest class with refactoring changes

To Do Get the latest python on this machine

To Do Create the dependency database tables

To Do Create data for single relationships

To Do Create dependency class

To Do Length needs moving to activity

To Do Write list comprehension to get the dependencies for a specific activity

To Do Need to store start and finish in activity

To Do Check the current code there are gaps between activities

To Do Indexes for new dependency table

To Do Work out the difference between test1 and test2

To Do Get Jupyter test up and running

To Do Store test data

To Do ActivityTypeId = 7 does not count forwards properly, NewActivityDuration is not incremented here need to move this into main loop and set dayCoeff = 1 each time

To Do Test GetAdjustedDate()

To Do Test current code with a positive and negative DependencyLength set

To Do Fix start date problem

To Do Test SS

To Do Test working days change in main loop

To Do Create a get max and min date for the relationships function

To Do Create test data for this

To Do Need to script the database

To Do Create some simple test data

To Do Create chart and upload

To Do Jupyter results save

To Do Create weather influenced function (or modify natural version)

To Do Test forwards and backwards

To Do Which one is called - conditions given in Pablo's notes

To Do Test this on full schedule

To Do Foreign keys

**Website**

To Do Create the detail template

To Do Look into django, read part 4 of guide

To Do Get schedule model working locally

To Do Setup base page

To Do Mock up the screens?

To Do Get update template working

To Do Look at bootstrap, might help with mocking things up

To Do Check and send screens to Pablo

To Do Organise files

To Do Get update working for schedule

To Do Get index page working for schedule

To Do Sort out checkboxes

To Do Loading of checkboxes

To Do Get insert working for schedule

To Do Get update/cancel redirect working properly

To Do Location crud

To Do Move over schedule screen changes

To Do Static files setup

To Do Look at how to do routing for other crud views

**Location**

To Do Get location index setup

To Do Datetime formatting and validation

To Do Setup the home route

To Do Get basic location working

To Do Add name field

To Do Location Index, just display table

To Do Location Detail, same page just display the form

To Do Location Update, add or insert location and return to index

To Do Fix routing - can do this manually if needed, some reading

To Do Validation

To Do Location JavaScript

To Do Location list JavaScript

**Activity**

To Do Get basic activity view working

To Do Decide on how add/edit works

To Do GetActivityType method on activities

To Do Add ActivityType and location to grid

To Do Update

To Do Pass through schedule\_id and check update again

To Do Add

To Do Need to script the database again

To Do Activity delete finish and test

**Activities and Dependencies**

To Do Location delete

To Do Manage dependencies, old test data just had FS0 activities

To Do Setup dependency index

To Do Need to get position setup, for add and update

To Do Replace fetchall with fetchmany

To Do Detail - show activity name

To Do Look at navigation in this area

To Do Update - Test a bit more

To Do Insert

To Do Delete

To Do Test activity delete again with dependencies

To Do New activity needs pos setting

To Do Move activity, look at previous code for positions

To Do Test code

To Do Get it working for insert

To Do Get hold of last row id

To Do Delete unnecessary dependencies test

To Do Warning message

To Do Look into Django tests

Dependencies:

To Do Go through the dates get start or end accordingly

To Do Adjust the dates add this to a new list

To Do Choose the max from this new list

To Do Cycle through dependencies instead and lookup the activity?

To Do Backup table and remove columns

To Do Setup test data again

To Do Run through test data again

To Do Move old tests from WeatherPython

Gantt chart:

To Do Look into jquerygantt

To Do need to look at scaling - C:/Users/Other/Downloads/gantt/samples/03\_scales/05\_dynamic\_scales.html

To Do Setup the dependencies

To Do Look at the bootstrap demo

To Do Move unassigned to top

To Do Need to fix versions at some point, Django 2.0.2, pymysql 0.8.0

To Do Activity type on gantt chart, show the letter in table

To Do Colorise

To Do Show the prefix, add the Initial column to the CalcScheduleDuration() results

To Do Move position warning message

To Do Need a method to give a count of dependencies to be removed

To Do Create onchange event in dropdown

To Do Create callback to GetSuccessors

To Do Need to step through and check this code

<https://stackoverflow.com/questions/6617056/updating-columns-with-a-sequence-number-mysql>

<https://stackoverflow.com/questions/6807219/can-i-set-user-defined-variable-in-python-mysqldb>

|  |  |
| --- | --- |
| To Do | C:\Users\Other\AppData\Local\Packages\Microsoft.Office.OneNote_8wekyb3d8bbwe\TempState\msohtmlclip\clip_image003.png |

**Make the Site Live**

To Do Test python anywhere site

To Do Start again with a schedule web app

To Do Setup mysql

To Do Try again without subfolder

To Do Follow the manual setup

To Do Add the static files setting in the web config

To Do Clear down schedules

To Do Set site password

**365 Report**

To Do 0 - 365 Report

To Do Make sure test schedule is working

To Do Find a chart - try the Google ones? No imports?

To Do Need to pass in StartDate to CalcScheduleDuration, then retest

To Do Test the Duration number

To Do Get the report page working

To Do Title of the graph. Instead of saying “Day/Duration comparison” name it “Project Duration as a function of the project start date”

To Do Instead of using discrete points for representing the durations, is it possible to use a line with straight segments instead? I think it will help visualising the patterns a little bit more clearly.

To Do Axis Y label, I think you’d better name it: “Project Duration (in total days)”

To Do Is it possible to make the X axis go from 0 or 1 up to 365 with vertical divisions when a month is ending? If you could add a label for each month like I, II, III, IV,… that would be great to differentiate on the spot when we get the lowest durations.

To Do Tooltip is possible for the above

To Do Calculate the min and max to scale chart, done automatically for line graph

To Do Need to show start date and end date

To Do Setup the extra buttons for the new reports

To Do Stochastic report

To Do Check test report again

To Do Setup a new report page

To Do Change the CRC function, check the greater than or less than

To Do Test normal again at this point

To Do Setup new line chart

To Do Check the randomness!

To Do Create the correct scale

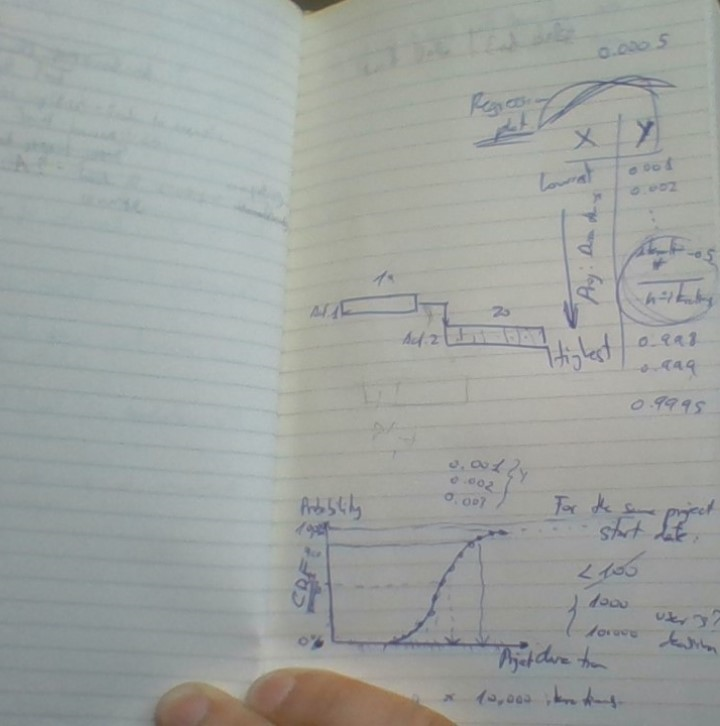
To Do Fix the chart vertical axis

To Do Commented line 30 in stochasticindex.html, line 72 in Weather.py

To Do Find out why the chart has jagged steps - it doesn't seem to be plotting all the points

To Do Fix the tooltip?

To Do Let them put in a different number of iterations?



To Do Reverse Report

To Do Reuse the same gantt chart screen

To Do Line 110 add a switch and add 1 to the actualDuration each time

To Do Do some tests to see if it reverses

To Do Create links from gantt to stochastic

To Do Feed in reverse report into stochastic

To Do Switch the column names

To Do Check to see how easy it is to switch the data in the Gantt chart, dependencies should be the same?

To Do Make sure the displayed columns don't change

To Do Check the other reports

Result = longer i.e. actual, result2 = shorter i.e. planned

To Do Need to refactor code

To Do Need to reverse it back to the estimated duration

To Do Fix the reverse code

To Do Create reverse stochastic button

To Do Get reverse stochastic data right

To Do Can we reverse exactly? It was math.floor!

Normal report

To Do Pass in parameters in CalcScheduleDuration

To Do Test current reporting works with this

To Do Decide how to skip

General:

To Do Demo mode - test True as well

To Do Move database settings into settings

To Do Error when deleting activity with predecessors i.e. ActivityId 1, ScheduleId 1

To Do Delete based on PredActivityId also

To Do Is the dependency count message right now?

To Do Can't delete a schedule

To Do Sort out test data

To Do Check for working days all blank

To Do Remove reports for new schedule

To Do Move the buttons under forwards/backwards sections

To Do Remove normal report

To Do Add forwards/backwards switch to the current weather aware code

To Do Schedule duration is not being calculated properly

To Do Need to find min start day and max end day

Final Changes:

Arrange report buttons under forwards and backwards

Weather aware report now shows planned as well

Reverse stochastic report

Switch for demonstration mode

Word document for IT

Making Live:

To Do Update database script in code

To Do Do a full test of the linux database

To Do Setup django under virtual machine

To Do Write up info for IT - <https://docs.djangoproject.com/en/2.0/howto/deployment/checklist/>

Try to remove all static files?

Pablo's Feedback:

I have been having a quick look at the website. Just a few silly things:

Whenever you access the website for the first time it always appears a white screen with a message saying in plain text “Unauthorized”. You need to refresh the page so that there is a pop up asking you about the username and password. Can we change that somehow so that, the first time it appears the pop up directly? I have tried it in Explorer and Safari in two different computers and happened the same.

~~First screen. There should be a message saying: “This is an website application for considering the influence of weather in UK construction projects. This project was funded by the Natural Environment Research Council (NERC) under the Environmental Risks to Infrastructure Innovation Programme (ERIIP) with Grant number NE/R008876/1 at the University of Reading. Weather data were supplied by the UK Met Office (MIDAS data set).”~~

~~And also, somewhere below: “Principal Investigator Dr Stefan Thor Smith, Co-Investigator Dr Pablo Ballesteros-Pérez, Research Assistant and~~ Computer programming Mr Peter Cooke.”

~~Additionally, when you click on “Delete” in one of the projects, there should be a warning window saying something like: “Schedule registers are shared among users and cannot be downloaded. If you delete this schedule it will be permanently deleted.”~~

~~Also, I suggest that what you call “Demonstration schedule” is renamed as “Schedule example”~~ and cannot be deleted/nor edited by anyone. That way there will always be one register at least. If a user opens it, there should be a message saying that this schedule edition is blocked by the Admin.

~~Change the section title “Reporting” by “Schedule reports”.~~

~~Also, when you say “Forwards” change it for “Forwards (for weather-aware project planning)”~~

~~When you say “Backwards” say “Backwards (for retrospective weather-related as-built projects)”~~

**\*\*\*Within the Schedule screen now:**

~~Change the “Start date” box name for “Project start date”~~

~~Change the button named “Locations…” by “Edit project locations”.~~

~~Change the button named “Activities…” by “Edit project activities”.~~

**\*\*\*Within the screen for creating new activities in the schedule:**

~~In the dropdown box whose title is “Activity type” replace it by “Climatic activity type”. I think this is a little bit clearer for future users.~~

~~I don’t understand very well the message you provided in the yellow box “Changing the position of an activity may create successor dependencies, these will be removed as part of the move process.”. Can you explain it to me, please?~~

~~When you say “Position Activity After - (leave blank to add to end)”, you mean if you select no predecessor, it will automatically become the predecessor of the last activity on the list? If so, maybe you could say: “Position Activity After - (leave blank to add as the previous activity successor)~~”.

~~Back in the main screen, in the section reports, you named the two buttons as “Weather aware”, replace both names by “Gantt chart”.~~

~~Inside each Gantt chart, there are two options “Actual” and “Planned”. Replace those names by “Actual (Weather-aware)” and “Planned (Weather-unaware)”, respectively~~

**Inside the stochastic reports:**

~~Change the button names that lead to these reports from “Stochastic…” to “Stochastic Project Duration”~~

~~The X axis title should be “Project Duration (total days)”, not just “Duration (total days)”~~

~~The X axis values should not contain decimal places. I prefer them to be integers only (if possible).~~

~~The title on top of each S curve should be “Stochastic Project Duration considering the weather for a project with start date XXX”, and that XXX should be replaced by the Project Start date as in the previous screen.~~

~~The third button (“Duration by Days of year…”) should be renamed as “Avg. Project Duration by start date”~~

~~Finally, the formerly named backwards stochastic report. In that S curve (not in the other stochastic report, just in this one) we should highlight somehow the point corresponding to the actual project duration and its probability. Maybe a thicker point of a different colour might do. But I would also add a small label explicitly saying :”Actual Project Duration: XX days, Probability: XX%”.~~

Usability Changes

To Do Look at title/icon

To Do Setup link to documentation

To Do Create demo schedule that works with the point

To Do Probability percentage needs rounding to two decimal places

To Do Add lat/long to the map, make sure the numbers are big enough

To Do Add constants for height/width

To Do test with old map first

To Do Adjust for new map

To Do Don't allow clicking beyond the edge, C:\Users\Other\Documents\WeatherWeb\schedule\templates\location\index.html line 161, check the x and y against map dimensions constants

To Do Some points are not being plotted correctly?

To Do View schedule - goes to Gantt view, remove return link for this functionality

To Do Button tooltips/descriptions

**Accessibility**

* + This tool definitely needs some kind of instruction list (I see in a previous email a manual has already been considered)
    - Possibly a text box on the side of each page; saying what steps need to be taken, or simply where each button is going to take you
    - I.e. Location… say something on the side along the lines of – “Plot locations where works will be carried out”
    - Could even be done in a less cluttered way by making a text bubble appear when you hover over a button, not sure how complicated these things would be development-wise, but still good to consider if possible.

**Homepage**

* + On the Homepage, possibly make it able to “View” as well as “Edit” and “Delete” schedules
    - Would provide the option for clients to look at a project without being able to edit anything
    - Good for jobs that have already been completed, takes away the risk of editing an already-completed schedule while still allowing clients to observe previous jobs and carry out analysis

* + On a side note, possibly include a “Status” column within the Schedule page, which you would complete on the Schedule list, could be populated with “Planning”, “Ongoing”, “Completed” or “Cancelled”.
    - Would be useful for larger companies keeping track of a larger number of schedules.

**Activities**

* + When adding a new activity, you cannot input dependencies right away, you have to save it and go back in to edit it before you can put them in. Is this intended?

**Reporting – Weather Aware**

* + Change “Actual duration” to “Estimated duration”

To Do Schedule in progress change

To Do Code disable to make usability changes live, look in github to re-enable

To Do Edit/Add Complete

To Do Show status in schedule list

To Do Disable date when status changes

To Do Reporting

To Do Testing

To Do No validation, but allowing a blank field

To Do Setup db script, weather db created

To Do Test the other reports

To Do Create the new database

To Do Switch to the new database

To Do Setup ciria test again

To Do Xhtml gantt visual indicator?

To Do Final testing

To Do Make live

To Do Add some kind of navigation, header/footer

To Do Breadcrumbs - <https://getbootstrap.com/docs/3.3/components/#breadcrumbs>

To Do Can remove page title and make this a part of the breadcrumb. 04/09/2018.

Fixes/Suggestions

To Do Order schedule list by Name

To Do Fix days of year start date bug

To Do Navbar collapses on mobile, <https://stackoverflow.com/questions/23535289/bootstrap-3-disable-navbar-collapse>

To Do Retest everything

To Do Tidy up the code

To Do Make the code live

To Do Check the point code is easy to switch

To Do Activity insert should really remove the message

Making Live

To Do Send an update of the code

To Do Check the correct database code mentioned in the document

To Do Setup and test the files to be sent

To Do User manual

To Do Add status date to the Gantt chart

To Do IE 11 Status date fix, use disabled on IE?

var isIE11 = !!navigator.userAgent.match(/Trident.\*rv\:11\./);

*From <*[*https://stackoverflow.com/questions/20089145/how-to-detect-ie11-using-jquery*](https://stackoverflow.com/questions/20089145/how-to-detect-ie11-using-jquery)*>*

To Do Disable the forwards/backwards buttons accordingly

Extra:

To Do Drop unused fields from database, look at the nulls in activity and dependency

To Do Bug in days of year report on click, zero index is the headings, need to do +1 but it only runs up to 363?

To Do Schedule with no activities crashes reports

To Do Changing working days changes the duration? Can check with test spreadsheet

To Do Fix reverse weather durations

Stop at –1 the total for the correct result

To Do Stochastic calculations

To Do Calculated durations are slightly too low, think I need to do the same as above

# Setting Changes

Old way:

|  |  |
| --- | --- |
| return pymysql.connect(host='localhost', |  |
|  | user='root', |
|  | password='', |
|  | db='weather', |
|  | charset='utf8mb4', |
|  | cursorclass=pymysql.cursors.DictCursor) |

*From <*[*https://github.com/petercdev/WeatherWeb/commit/90c3299a695b71506ef82243f0e70cdd2aea235b*](https://github.com/petercdev/WeatherWeb/commit/90c3299a695b71506ef82243f0e70cdd2aea235b)*>*

Version 2:

common.py:

from schedule.models import Database

    return pymysql.connect(host=dbdict["host"],

        user=dbdict["user"],

        password=dbdict["password"],

        db=dbdict["db"],

        charset='utf8mb4',

        cursorclass=pymysql.cursors.DictCursor)

database.py:

def GetDatabaseSettings():

settings = {

"host" : "localhost",

"user" : "root",

"password" : "",

"db" : "weather"

}

return settings

\_\_init\_\_.py:

from . import Database

# Links

<https://help.pythonanywhere.com/pages/FollowingTheDjangoTutorial>

<https://help.pythonanywhere.com/pages/VirtualEnvForNewerDjango>

<https://help.pythonanywhere.com/pages/InstallingNewModules/>

<https://help.pythonanywhere.com/pages/DjangoStaticFiles>

<https://docs.dhtmlx.com/gantt/api__refs__gantt.html>

<https://www.vagrantup.com/docs/networking/public_network.html>

<https://docs.djangoproject.com/en/2.0/ref/templates/language/>

<https://docs.djangoproject.com/en/1.7/howto/legacy-databases/>

<https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django>

# Performance Test Code

# activityService = ActivityService

# activities = activityService.GetByScheduleId(schedule\_id)

# start\_time = time.time()

# today = datetime.datetime.now()

# for x in range(1,1000000):

# today += datetime.timedelta(days=1)

# for x in range(1,100):

# activities = weather.CalcScheduleDuration()

# print(today)

# print("Program took " + str(time.time() - start\_time) + " to run")

# Setup

Virtual Environment:

myenv

common.py:

import pymysql

def getconnection():

return pymysql.connect(host='weatheraware.mysql.pythonanywhere-services.com',

user='weatheraware',

password='mysqlconnect',

db='weatheraware$weather',

charset='utf8mb4',

cursorclass=pymysql.cursors.DictCursor)

settings.py:

'DIRS': [os.path.join(BASE\_DIR, 'templates'), ],

# Test Data

Weather Aware:

New schedule duration: 574 Last day Num: 73 Last day 2019-03-14

Reverse:

New schedule duration: 488 Last day Num: 73 Last day 2019-03-14

After removal of weather aware dependencies:

The same because dependency lengths are 0

Must set this location:

|  |
| --- |
| **-0.90** |
| **49.00** |