BME Digital Laboratory for Summer 2020 – From IIT-BME MRTD group

Python Coding through the Calendar Problem (Version 2.2020.06.18)

This tutorial was created through a collaboration with:
>   **Professor Richard Hoshino** (Quest University Canada – Northeastern University Vancouver)

The BME Digital Lab Tutorial Python-Problem-Calendar-Mark was prepared by:
>   **Mark Dhom**   (Main Contributor - MRTD Lab graduate student in IIT-BME)
>   **Emily Tao**   (Supporting Contributor - MRTD Lab graduate student in IIT-BME)
>   **Professor Kawaji**   (Reviewed ver 2.2020.06.18) and uploaded Instruction #1 to repo.

Student Instructions for the Calendar Problem Exercise:

There are three major goals for this problem. For this activity, the students will:
1. First complete the ***Calendar Problem*** challenge in this folder. Professor Richard Hoshino, the creator of this problem, has provided some online resources.
2. Next ***think about how they just programmed*** their solution (i.e. on a web browser).
3. Finally ***scavenger hunt*** specific engineering tools used by computer programmers.

For Step 1, Complete the Calendar Exercise in Step_1_Calendar-dr_hoshino.pdf. This can be found in the same folder as this instruction document. In this Step 1 handout, you will gain access to a browser-based programming platform using Python programming language:
>   http://www.bit.ly/CallystoCalendar

>   And this will open a **Jupyter Notebook** on your browser (such as Google Chrome, Microsoft Edge, Apple Safari, etc.)

>   Step 1 Online Resources:
>   https://richardhoshino.com/inspiring-students
>   http://tantalus.questu.ca/~rhoshino/files/calendar.pdf

>   After you complete this exercise, **proceed to Step 2.**

For Step 2, Ask yourselves how you just accomplished programming your solution.

>   **Congratulations!** You completed a programming exercise using the Python language! Now, ask yourselves the following two questions:
>   1. **To whom** was this Step 1 Calendar Handout written to?
>   Was it ***to students such as yourselves***, or ***perhaps to your teachers?***

>   2. Despite this tutorial's target audience being tailored to ***your teachers, were you nonetheless able to understand and learn the mathematical behavior?***

>   **In your own words, try writing up a short response to both questions.**

>   **After you answer both questions, you will next proceed to Step 3, which is an Online Scavenger Hunt that Mark has prepared for you.**

Student Instructions to the Calendar Problem Exercise (Page 2):

For Step 3, Commence the following Online Scavenger Hunt Exercise as prepared by Mark:

Another version of this Calendar Problem Code by Engineering Student Mark, **will become available on Friday, June 19th at**:

https://github.com/kkawaji/mrtd-iit-git.git

In event that you try accessing this link before this Friday, you will most likely not find anything.

On Friday, there will be several ways to retrieve the files. **First is to simply download the folder, which almost anyone will be able to do.**

Second is to use a powerful software engineering tool called: Version Control.

In fact, we will employ two kinds of Version Control Tools: **SVN and GIT. The above** is a **GIT.**
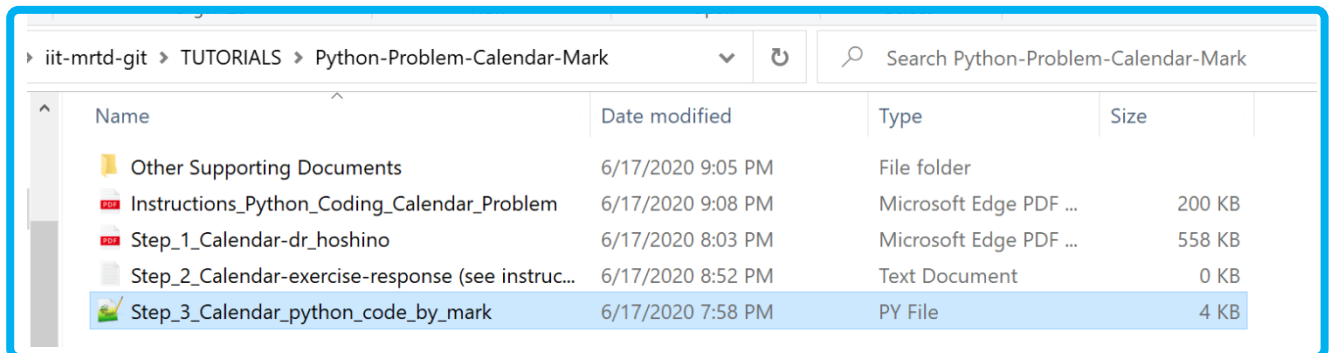
One of Mark's teammates, Emily, has created some nice tutorials about SVN and other related digital tools that can be downloaded at the following dropbox link:

https://www.dropbox.com/sh/7wogpy38xg32b4d/AAAB-zKg4zF8V_wvUYYYXWSsa?dl=0

(Some of you may already have looked into these items from other exercises).

Try to obtain, or 'clone' the above GitHub repository. You may create your own github account using your email. If you are still in high school, **you may wish to consider asking your parents first to create an account (or have them create an account for you).**

Finally, you will be able to obtain Mark's Code, which should look like this (in Windows):

Name	Date modified	Type	Size
Other Supporting Documents	6/17/2020 9:05 PM	File folder	
Instructions_Python_Coding_Calendar_Problem	6/17/2020 9:08 PM	Microsoft Edge PDF ...	200 KB
Step_1_Calendar-dr_hoshino	6/17/2020 8:03 PM	Microsoft Edge PDF ...	558 KB
Step_2_Calendar-exercise-response (see instruc...	6/17/2020 8:52 PM	Text Document	0 KB
Step_3_Calendar_python_code_by_mark	6/17/2020 7:58 PM	PY File	4 KB

(Path: iit-mrtd-git > TUTORIALS > Python-Problem-Calendar-Mark — Search Python-Problem-Calendar-Mark)

Once you obtain **Step_3_Calendar_python_code_by_mark.py**, try opening this on your computer. For this, you may use notepad++ (https://notepad-plus-plus.org/) which is a free tool that is widely used for opening python code files. See whether this is different from your approach.

Stay tuned for Part 2 Instructions (which will be provided through this github)!