Activity: Flowchart

OVERVIEW:
For this assignment, you will create a flowchart from an everyday process in your life.

LEVEL OF EFFORT:
This activity should take approximately 240m to complete. It will require:
- 0m Research
- 15m Prep & Delivery
- 240m Work

If you find that this activity takes you significantly less or more time than this estimate, please contact me for guidance.

READING & RESOURCES:
Video: The 4 Types of Procedural Code (necessary) Approx. Duration: 6m
This video discusses the 4 types: Sequential, Conditional, Repetitive and Reusable. What does each sort of code do and how is it used?
Flowcharts for Programming (helpful) Approx. Duration: 3m
Flowchart Assignment Rubric (necessary)
This rubric outlines the points for the assignment. Make sure you check off each one as done before submitting your assignment.

OBJECTIVES:
Successful completion of this activity will show that you can do the following:
- Understand the benefit to planning logic with flow charts.
- Apply flow chart symbols to document a workflow and/or a set of instructions.
- Recall symbols used in flow charts and their purpose within the chart.
- Create a flow chart to represent a process or set of instructions.

INSTRUCTIONS:

1. Before you begin, you should read the rubric. This is extremely important, as it will tell you exactly how this assignment will be graded.

2. In your class folder, within your repository, create a folder called **Lastname_Firstname_Flowchart_Assignment**.

3. Brainstorm an original idea for a flowchart that is based on a real-life activity that you perform. Make sure it has the possibility of meeting the following criteria:

   a. A sequential process with a minimum of 5 steps.
   b. A minimum of 3 conditional decision points with matching paths for all choices.

4. Create a flow chart that represents an instruction for something in real life.
   a. This could be something you do on a day-to-day basis (like how to jump a car) or it could be something eventful like bungee jumping.
   b. Make sure to use the correct symbols for each piece of your flowchart.
      i. Rectangle – Basic Step
      ii. Diamond - Conditional Choice
      iii. Oval or Rounded Rectangle - Start-Stop Terminator
      iv. Flow Arrows

5. Make sure to put your name and the title on the flowchart.

6. After your flowchart is complete, test each path and make sure there is a clear path from the start to the end. This should work for each of your conditional choices as well.

CRITERIA:

Make sure your project follows this list of criteria:

- Decide on what your process will be. This should be an **original** activity. In other words, you may not use any of the examples mentioned in this class. This will result in an automatic **0**.
- You can use flowcharting software of your choice, or Word, or Adobe Illustrator or Photoshop. Yed is a popular one. I suggest using Google Docs. ([here's a how to](#))
- Your **must** contain
    - **Sequential –** A minimum of 5 steps
    - **Conditional -** At least **3** examples of *decision* within the instruction. For example "If you are at high altitude, then add two eggs, otherwise add one egg"
    - A clear single starting and ending point
    - Format must be from top to bottom or left to right
    - Text labels must be concise but still informative
    - Flowchart should be easy to walk through
    - Must use each of the covered symbols at LEAST once. – rectangle, oval, circle, diamond and flow arrows.
    - All symbols must be used correctly

- Final output must be saved in a PDF format

TURNING IT IN:

- Whatever software you use to generate your flowchart, be sure to export it as a PDF file.
- You will need to commit this to your Git repository and push to GitHub in order to receive credit.
- Please make sure your repository is organized with a folder for each assignment.
- Make sure your file is named **Lastname_Firstname_Flowchart_Assignment.pdf**
- Upload this zipped file to FSO. NOTE: This file is only used as a backup file. Everything will be graded based on the files pushed to yourGitHub repository.
- **IMPORTANT**: If your pdf is not in your GitHub repository, it will result in a 0 for the assignment.

DON'T FORGET:

- Test your flowchart! Walk through it and take each path.
- You must have a minimum of 5 steps and 3 conditional choices with paths.
- Must be saved in a PDF format.
- Must be uploaded to both FSO and GitHub Repo

Bare Minimum Requirements

These requirements must be satisfied before any points are awarded. Failing to meet these requirements will result in a zero (0) grade.

1. A single document deliverable. That is: one PDF, or one image, or one Word doc, etc.
2. Your document DOES NOT use the same examples given, including Factories or Recipes.

Topic	%	Excellent (100%)	Good (75%)	Fair (30%)	Poor (0%)
Types of Code					
Sequential	25	Sequential processes with at least 5 steps are shown, exhibiting a linear flow (cause and effect).	Sequential processes is shown but has one of these problems: 1. Some cause-effect issues 2. Less than 5 steps in process	Sequential processes is shown but has both of these problems: 1. Some cause-effect issues 2. Less than 5 steps in process	No understanding of sequence, cause-and-effect is shown.
Conditional	25	Three or more choices / decision points involving a pair of options, such as yes/no or A/B, are shown, including paths for each.	Only two out of three choices / decision points involving a pair of options, such as yes/no or A/B, are shown, including paths for each.	Only one out of three choices / decision points involving a pair of options, such as yes/no or A/B, are shown, including paths for each.	No understanding of conditionals is shown.
Technical					
GitHub Delivery	10	Chart is available on GitHub, visible to the instructor, and in an easily-discoverable location.	Chart is on GitHub, but is not visible to the instructor or is hard to find.		Chart is not on GitHub.
Correct Symbols	15	Includes: Step/Rectangle, Condition/Diamond, Start-Stop/Oval, arrows. All symbols are used correctly.	One or two misused symbols.	More than two misused symbols.	Symbols are not used correctly at all.
Attention to Detail	15	Text annotations are thorough, concise, relevant, and meaningful.	One or two poor or missing annotations.	More than two examples of poor or missing annotations.	Text is not correct at all.
Professionalism					
Completeness	5	All required elements from the assignment are included.	One or two minor elements missing.	Major pieces missing.	Not even close to complete.
Investment	5	Presentation is well thought out, coherent, and includes personal relevance.		Presentation is impersonal or disconnected.	Little to no forethought, personalization, or relevance.

Your course Professionalism grade is affected by your Investment grade.