Bash & Customer Support Mini Challenges

☰ Time Frame	Screener
☰ Engineer Type	Bash
☰ Solution	Solution
☰ Type	

Challenges

- Challenge 1: Customer support challenge
- Challenge 2: 1 minute typing test

Challenge 1

Pretend you have just received the following emails from different users asking for help with a shell related issue. Write an example response to each. Please submit in a markdown/word/textedit doc

Questions

1. How do I change my default shell from bash to zsh?
2. How can I customise my prompt such that:
   a. It says my current working directory but only the folder name not the full path (e.g. if I'm on my desktop, make it just say `Desktop` not `~/desktop`. If I'm in my home directory, make it say `~` not your name (e.g. `brendan`)
   b. If I'm in a git repo, it should additionally say the current branch I am on, but if am not in a git repo, it should say nothing
   c. BONUS: How can I make the git branch be bold and coloured green?

```
~ $
~ $
~ $ pwd
/Users/brendan
~ $ cd Desktop/
Desktop $ cd abc/
abc $ pwd
/Users/brendan/Desktop/abc
abc $ cd
~ $ pwd
/Users/brendan
~ $
~ $ cd _Fig/website/
website (brendan/cliFrameworkIntegrationDocs) $ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
website (main) $ |
```

3. How can I have my shell automatically alternate printing out either "First line" or "Second line" just before a new prompt loads.

   a. Hints: 1. you will want to look into zsh's `precmd` hook + storing state with environment variables. 2. Assume the user has already defined `precmd` somewhere

```
Last login: Wed Nov 10 13:18:40 on ttys013
First Line
~ $
Second Line
~ $
First Line
~ $
Second Line
~ $
First Line
~ $
Second Line
~ $
```

4. I have a file on my desktop called `test.sh` which contains just one line: `echo hello world`. But when I run `./test.sh` it says `zsh: permission denied: ./test.sh`. How do I

get this working?

5. I just installed brew on my new Mac M1 and it asked me to put `/opt/homebrew/bin` in my path. What does this mean and how do I do it?

6. Hi - my friend just referred me to download fig. I like it but it crashed a few times and sometimes it got in my way (ie it inserted a command instead of pressing enter). Are you able to help?

Bonus Question

I have a LOT of files on my desktop. I want to find all the files on my desktop that contain the phrase "hello world"

1. What command can I run that just lists the files that contain "hello world"?

2. What command can I run that lists the files that contain "hello world" and for each file, the line that contains "hello world" AND the lines 5 lines before and 5 lines after that line

```
~ $
~ $
~ $ # just list the files that contain hello world
~ $ [REDACTED]
/Users/brendan/desktop/abc
/Users/brendan/desktop/def
/Users/brendan/desktop/ghi
~ $ # list the files and for each file, the lines +/- 5 lines around hello world
~ $ [REDACTED]

/Users/brendan/desktop/abc-
/Users/brendan/desktop/abc:This file is one line and contains the phrase hello world
/Users/brendan/desktop/abc-
--
/Users/brendan/desktop/def-This file is 3 lines and contains the phrase
/Users/brendan/desktop/def:hello world
/Users/brendan/desktop/def-abcdefh
--
/Users/brendan/desktop/ghi-This file is 2 lines and contains the phrase in uppercase
/Users/brendan/desktop/ghi:HELLO WORLD
~ $ cat ~/Desktop/abc

This file is one line and contains the phrase hello world

~ $ cat ~/Desktop/def
This file is 3 lines and contains the phrase
hello world
abcdefh
~ $ cat ~/Desktop/ghi
This file is 2 lines and contains the phrase in uppercase
HELLO WORLD
~ $ |
```

(This last one may be a little harder but I want to see how you do. If you can't do it, no worries. If you need help please email)

Hints for structuring your response

1. Keep your email short and simple! **No one** wants to read a long email

2. Use single backticks when referencing a small code block e.g. `cd desktop`

3. Use tripe backticks when referencing a longer code block e.g.

   ```
   git add .
   ```

4. Remember, you're pretending to respond to a user asking these questions. Be nice and friendly!

Articles hints

- https://www.lihaoyi.com/post/BuildyourownCommandLinewithANSIescapecodes.html

- https://titanwolf.org/Network/Articles/Article?AID=3f2f9e80-e63d-40e8-9d3e-d33ebe3a7136

- https://unix.stackexchange.com/questions/363525/what-is-the-difference-in-usage-between-shell-variables-and-environment-variable

Answer

Challenge 2

Could you please take this 1 min typing speed test: https://www.typing.com/student/typing-test/1-minute and screenshot your results?

Feel free to take it a couple of times. Don't worry too much about accuracy (as long as it's above 90% it's probably fine).

We know typing speed doesn't necessarily correlate with a successful customer support person. However, you will likely be interacting with a lot of users online so we are just interested in seeing how quickly you can type!