Assignment Bash/Terminal

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Question 1: (10 Points)

What is the difference between shell and bash?

Ans:

A shell is a command-line interface that allows users to interact with the operating system by running commands, executing scripts, and managing processes.

A bash is a kind of shell, most used in Linux and macOS systems.

Question 2: (10 Points) To respond to this question, you need to use terminal/Bash and have a screenshot of your terminal/bash.

1. What is your home directory?

Ans: /c/Users/user

2. What files/folders exist in it?

   Ans:

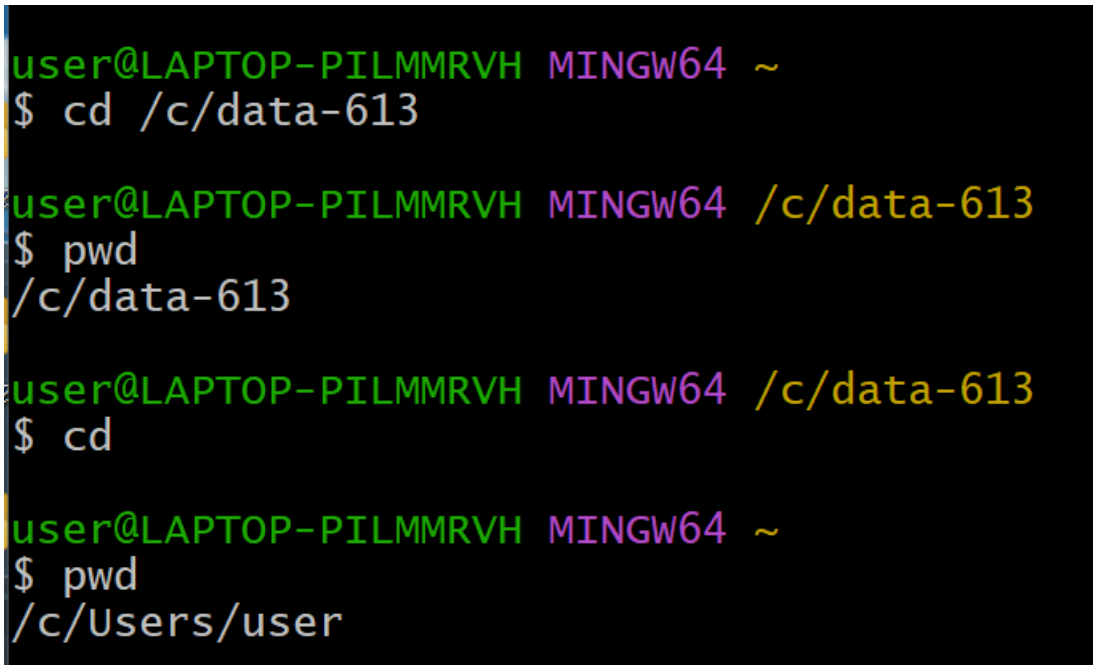
Question 3: (10 Points) To respond to this question, you need to use terminal/Bash and have a screenshot of your terminal/bash.

1. Where does the command `cd../../` take you? Run the command `pwd` and explain the output!

Ans: The command `cd../../` moves up to two levels in the directory path. The command `pwd` shows the current path.

2. What does the command `cd` do? Run the command `pwd` and explain the output!

Ans: The command `cd` takes me to the my home directory. The command `pwd` shows the current path.



Question 4: (10 Points) To respond to this question, you need to use terminal/Bash and have a screenshot of your terminal/bash.

Read the manual page of `ls`. What does the `a` flag do? What does the `l` flag do?

Ans:

```
user@LAPTOP-PILMMRVH MINGW64 ~
$ ls --help
Usage: ls [OPTION]... [FILE]...
List information about the FILEs (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.
  -a, --all                  do not ignore entries starting with .
  -A, --almost-all           do not list implied . and ..
      --author               with -l, print the author of each file
```

```
 -l                         use a long listing format
 -L, --dereference          when showing file information for a symbolic
                              link, show information for the file the link
                              references rather than for the link itself
```

Question 5: (A and B each have 5 points, and C has 10 points. The total is 20 points.) To respond to this question, you need to use terminal/Bash and have a screenshot of your terminal/bash.

1. Create a folder within your home directory, which was identified in Question 2, and name it 'temp_bash'.
2. Create a new file using the command `touch` and name it `myfile.txt` inside the new folder `temp_bash` and run `ls` to show that the file is inside the folder.
3. Run the `stat myfile.txt` command and explain the information retrieved from the output. Here is an example of what should be included in the output and a brief explanation for each part.

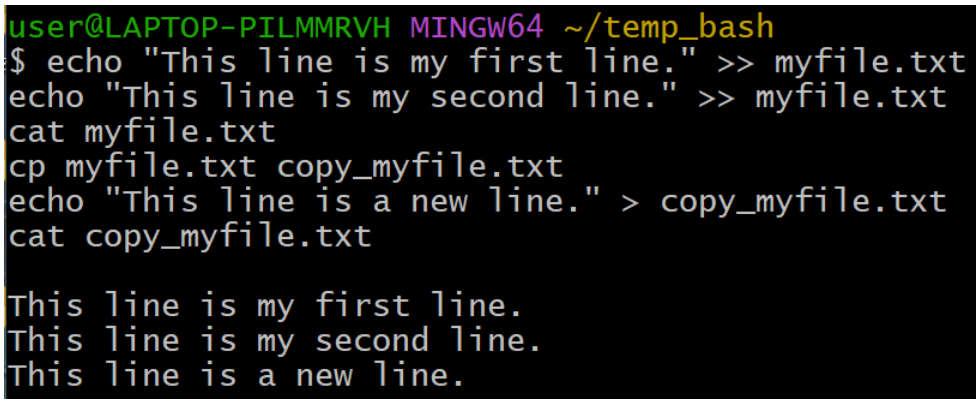
- `Blocks: 0 ` The number of blocks for the file.
- `IO Block: 65536` The size of each block.

```
user@LAPTOP-PILMMRVH MINGW64 ~
$ mkdir ~/temp_bash
cd ~/temp_bash
touch myfile.txt
ls
stat myfile.txt

myfile.txt
  File: myfile.txt
  Size: 0               Blocks: 0          IO Block: 65536  regular empty file
Device: 6ac13ccbh/1791048907d   Inode: 562949954065756  Links: 1
Access: (0644/-rw-r--r--)  Uid: (197609/    user)   Gid: (197609/ UNKNOWN)
Access: 2025-01-24 15:46:17.963389400 -0500
Modify: 2025-01-24 15:46:17.963389400 -0500
Change: 2025-01-24 15:46:17.962768500 -0500
 Birth: 2025-01-24 15:46:17.962768500 -0500
```

Question 6: (40 Points) To respond to this question, you need to use terminal/Bash and have a screenshot of your terminal/bash.

1. Use the command `>>` and add the following line `This line is my first line`. Now add the following line `This line is my second line`. Then, run `cat myfile.txt` to show that the line has been added.
2. Copy the file `myfile.txt to file copy_myfile.txt with the command `cp``
3. Use the command `>` and add the following line `This line is a new line` to copy_`myfile.txt`. Then run `cat copy_myfile.txt` to show the line is added.
4. Explain the difference between `>` and `>>` based on the result of the Question 6.



Ans: >> is used to append an existing file and > is used to overwrite an existing file.