(Lab 2) Setting Git repo, Shell Exercise, More Git

CS2013 Systems Programming

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Quiz 1 (15 minutes)

1. On a linux machine logged in as "user", issuing "ls -l" shows a directory of name "test". A snapshot of the output is as follows

   `drw-rw-r-- user user 4096 Oct 23 17:10 test`

   However doing "cd test" gives the output.

   `cd: permission denied: test`

   Explain why this happened.

2. Which of the following is/are **not** a valid way to refer HOME in bash.

   a. . (dot)
   b. ~ (tilde)
   c. %HOME%
   d. $HOME   **Do not copy the question**

General tips - I

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- Space in commands matters
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- Tab for autocomplete

General tips - II

- Cancel anything typed ? `Ctrl+C` **to cancel**
- Run an earlier command again ? **Use up arrow key**
- Search for an earlier command ? `Ctrl + R` (reverse search)
- Clean screen ? `clear`
- Clear screen like a pro ? `Ctrl + L`

Secure Shell and Cryptography

- Public Key Cryptography - private, public keys (Eg. RSA algorithm)

- Digital signature algorithm - `ed25519` (Edwards curve DSA)

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- Creating private and public keys

  - `$ ssh-keygen -t ed25519`

- Sending public key - `ssh-copy-id`

  - `$ ssh-copy-id user@gitserver`

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    - `$ ssh-copy-id user@gitserver` Password: **`fluffycat`**

Setting up a git repo

- If your roll number is 11223344

  ```
  $ git clone git@gitserver:cs2013_11223344
  ```

- Git working correctly ? Run

  ```
  $ ssh -T git@gitserver
  ```

Lab Exercise

- Question executable available at the address:
  http://10.129.4.1/cs2013/lab02/

- Create a folder `bin` in home

- Download the file `CHECK` and copy to the folder `bin`.

- Open terminal and type

  ```
  $ chmod +x bin/CHECK
  ```

- Then type

  ```
  $ CHECK
  ```