

# POLL:

1. vim
2. emacs
3. I have no idea what you are talking about

# SSH (CONT.)

- Annoying to enter password everytime!
- Setting up ssh keys
  1. Check for existing

```
ls -al ~/.ssh
```
  2. Generate new keys

```
ssh-keygen -> generates public and PRIVATE keys
```
  3. Add public key (`id_rsa.pub` by default) to remote server in the file

```
~/.ssh/authorized_keys
```

```
ssh-copy-id -i "username@hostname"
```



# HAVING ISSUES WITH SSH-KEYS? -- COMMON PROBLEMS

- Windows users will need to use something other than command prompt
  - git-bash (bash shell that comes with git for windows)
  - Ubuntu terminal - you can get this from the Windows app store
- Errors about the authorized keys file:
  - Not existing: make the file with  
`touch ~/.ssh/authorized_keys`
  - Wrong permissions:  
`chmod 600 ~/.ssh/authorized_keys`

# HAVING ISSUES WITH SSH-KEYS? (CONT.)

- If for some reason you can use `ssh` and `ssh-keygen` but don't have `ssh-copy-id`
  - Move `id_rsa.pub` to remote machine:  

```
scp ~/.ssh/id_rsa.pub username@hostname:~
```
  - SSH into remote machine and add public key to `authorized_keys`:  

```
ssh username@hostname
```

  

```
cat id_rsa.pub >> .ssh/authorized_keys
```

# REDIRECTING STDIN/STDOUT/STDERR

- stdin - what you type into terminal
- stdout - terminal screen
- stderr - also goes to terminal screen
- Redirecting stdin: <
- Redirecting stdout:
  - > overwrite
  - >> appends
- Redirecting stderr: 2>

# BASIC FILE MANIPULATION

- `cut` - accessing specific fields from delimited files
- `tr` - translating characters in files

- Examples:

- Replace `a`s with `b`s `tr a b`

- Upper to lowercase

- ```
tr [:upper:] [:lower:] <
inputfile
```

- ```
tr [A-Z] [a-z] < inputfile
```

- Delete characters `tr -d 'N'`