EECS 367 Lab:
Git-ing started with git
Administrative

• Welcome to AutoRob!

• Lots of information on the course website
  • https://autorob.org

• Assignment #1: Path Planning
  • Due 11:59pm, Wednesday, September 18
Administrative
Motivation

The directory where you are working

( ~/uname/reponame or C:\Users\uname\reponame )

The repository on your local computer

( ~/uname/reponame/.git )

Somewhere on the cloud

The repository on a remote server

( http://gitlab.eecs.umich.edu/uid )

Your local computer

Git Data Transport Commands

http://csteele.com
Motivation
Lab Takeaways

1) Git Initialization
2) Clone, Copy, Commit KinEval Stencil
3) Make a Change Commit & Push
4) Practice with HTML
5) Validate your Changes
Git Basics: commands

- Push completed project to repository (or just to update)
  - add files to a repository: `git add <file listing>`
  - commit changes to local repo: `git commit -a -m "<msg>"`
  - push local changes to a remote repository: `git push`
- Pull to updates your local repository (and workspace) from remote
  - pull remote changes to a local repository: `git pull`
Git Initialization

1) Create a git repository on github, bitbucket, or EECS gitlab website

2) Install git on your machine


   OSX: https://code.google.com/p/git-osx-installer/

3) Clone the repository to your machine:

   git clone https://github.com/yourid/yourrepo.git
1) Create a git repository on github, bitbucket, or EECS gitlab website
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Create a new repository for course software
1) Create a git repository on github, bitbucket, or EECS gitlab website

Ensure your repo is private!
1) Create a git repository on github, bitbucket, or EECS gitlab website

Success!
2) Install git on your machine


OSX: https://code.google.com/p/git-osx-installer/
3) Clone the repository to your machine:

    git clone https://github.com/yourid/yourrepo.git
KinEval: Clone, Copy, Commit

4) Clone contents of stencil repository the repository to your machine:
   ```
git clone https://github.com/autorob/kineval-stencil
   ```

5) Copy contents of stencil repository to your repository
   ```
cd <your repository directory>
cp -r <stencil repository directory>/* .
```

6) Commit these changes and then push them to your remote repository
   ```
cd <your repository directory>
git add *
git commit -a -m "initial commit"
git push
```

7) Check webpage for remote repository to see changes online
4) Clone contents of stencil repository the repository to your machine:

```bash
git clone https://github.com/autorob/kineval-stencil
```

![Command output showing successful clone](image)

**kineval-stencil**
5) Copy contents of stencil repository to your repository
   
   ```
   cd <your repository directory>
   cp -r <stencil repository directory>/* .
   ```
6) Commit these changes and then push them to your remote repository

```bash
cd <your repository directory>
git add *
git commit -a -m "initial commit"
git push
```

```
[tpos-MacBook-Pro:kineval student]$ git add *
tpos-MacBook-Pro:kineval student$ git commit -a -m "initial commit"
[master 8d4a274] initial commit
  Committer: Student <student@your-email.com>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:
  git config --global --edit
After doing this, you may fix the identity used for this commit with:
  git commit --amend --reset-author

167 files changed, 129563 insertions(+)
create mode 100644 LICENSE
create mode 100644 home.html
create mode 100644 js/3isbot_camera.js.backup
create mode 100644 js/ColladaLeader.js
create mode 100644 js/ColladaLeader2.js
```

```
tpos-MacBook-Pro:kineval student$ git push
Enumerating objects: 192, done.
Counting objects: 100% (192/192), done.
Delta compression using up to 4 threads
Compressing objects: 100% (188/188), done.
Writing objects: 100% (190/190), 23.72 MiB | 1.24 MiB/s, done.
Total 190 (delta 11), reused 0 (delta 0)
remote: Resolving deltas: 100% (11/11), done.
To https://bitbucket.org/YourUsername/YourProject.git
  f32b1fb..8d4a274  master -> master
```
7) Check webpage for remote repository to see changes online
Make a Change: Commit & Push

8) Open “home.html” and “project_pathplan/search_canvas.html” in a web browser (make sure this code runs properly)

9) Create “me.html” using a text editor with your name added to the file

10) Add “me.html” to your local repository
    
    cd <your repository directory>
    git add *

11) Commit and push “me.html” to your remote repository
    
    git commit -a -m “created my html file”
    git push

12) Check webpage for remote repository to see changes online
8) Open “home.html” and “project_pathplan/search_canvas.html” in a web browser (make sure this code runs properly)
9) Create “me.html” using a text editor with your name added to the file
10) Add “me.html” to your local repository
   
   cd <your repository directory>
   git add *

11) Commit and push “me.html” to your remote repository
   
   git commit -a -m “created my html file”
   git push
12) Check webpage for remote repository to see changes online
HTML Practice

13) Create the “me” directory within your local workspace
   cd <your repository directory>
   mkdir me
14) Copy a picture that best represents you to “me/me.png”
   cp <picture_location> me/me.png
15) Add the following to “me.html” to your local repository
   <img src="me/me.png">
   I am an awesome student. I’m most excited about:
   <script>
   console.log(Array(16).join("wat"-1)+" Batman!"))
   </script>
16) Open “me.html” in a web browser and open web console
13) Create the “me” directory within your local workspace
   cd <your repository directory>
   mkdir me
14) Copy a picture that best represents you to “me/me.png”
   cp <picture_location> me/me.png

Is that a tree!?!
15) Add the following to “me.html” to your local repository

```html
<img src="me/me.png">
I am an awesome student. I’m most excited about:
<script>
console.log(Array(16).join("wat"-1)+" Batman!"))
</script>
```
Validate Changes

17) Add the “me” directory to your local repository
   cd <your repository directory>
   git add *

18) Commit and push “me.html” to remote repository
   git commit -a -m "made my html file awesome"
   git push

19) Check webpage for remote repository to see changes online
17) Add the “me” directory to your local repository
   cd <your repository directory>
   git add *

18) Commit and push “me.html” to remote repository
   git commit -a -m “made my html file awesome”
   git push

```
$ git add *
$ git commit -a -m "made my html file awesome"
$ git push
```

After doing this, you may fix the identity used for this commit with:

```
$ git config --global --edit
```

2 files changed, 6 insertions(+), 1 deletion(-)
create mode 100644 me/me.png

$ git push
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (6/6), 3.14 MiB | 763.00 KiB/s, done.
Total 6 (delta 3), reused 0 (delta 0)
To https://bitbucket.org/AutoRobStudent/kineval.git
  c9e8eac..30cb902 master -> master
```
19) Check webpage for remote repository to see changes online
Validate Changes

20) Add Professor Jenkins and Anthony to your collaborators with admin privileges

Github: ohseejay and tonyop
Bitbucket: ohseejay and tonyop
EECS gitlab: ocj and topipari
20) Add Professor Jenkins and Anthony to your collaborators with admin privileges

Github: ohseejay and tonyop
Bitbucket: ohseejay and tonyop
EECS gitlab: ocj and topipari