

# Computer Graphics Project

MTAT.03.316

Fall 2018



IT Akadeemia  
toetab Skype™



Raimond Tunnel

**IN THEORY, THEORY=PRACTICE.**



**BUT IN PRACTICE?**

[memegenerator.net](http://memegenerator.net)

# Contact Information

- Raimond Tunnel – [jee7@ut.ee](mailto:jee7@ut.ee)



# Organization

- 3 credits course
  - Contact hours  $10 \cdot 1.5h = 15h$  = 0.58 credits
  - Individual work (63h): = 2.42 credits
    - Project idea – 4h = 0.15 credits
    - Project plan and timeline – 12h = 0.46 credits
    - Milestones  $6 \cdot 7h = 42h$  = 1.62 credits
    - Presentation – 5h = 0.19 credits

# Organization

- Project idea and plan (~1-2 pages) – 14.09
- Milestones:
  - **Group1:** 21.09, 12.10, 26.10, 09.11, 23.11, 07.12
  - **Group2:** 28.09, 19.10, 02.11, 16.11, 30.11, 14.12
  - 6 in total
  - 2 week long
  - 7h of work each
- Final demo – 21.12

# How to pass?

- Create a project plan
- Set up and achieve your own milestones

Missing those, gets you a strike.

Do not get more than 3 strikes.



- Do a presentation of the final result

Missing that is an automatic failure.

Not attending fellow students' presentations gets you a strike.

# The Final Result

- Some kind of a demonstratable software.
  - Standalone build
- Good project page
  - Clear milestone descriptions and pictures
  - Link to the final build
  - Possible link to the repo
  - Short video of the final build!

# What to do?

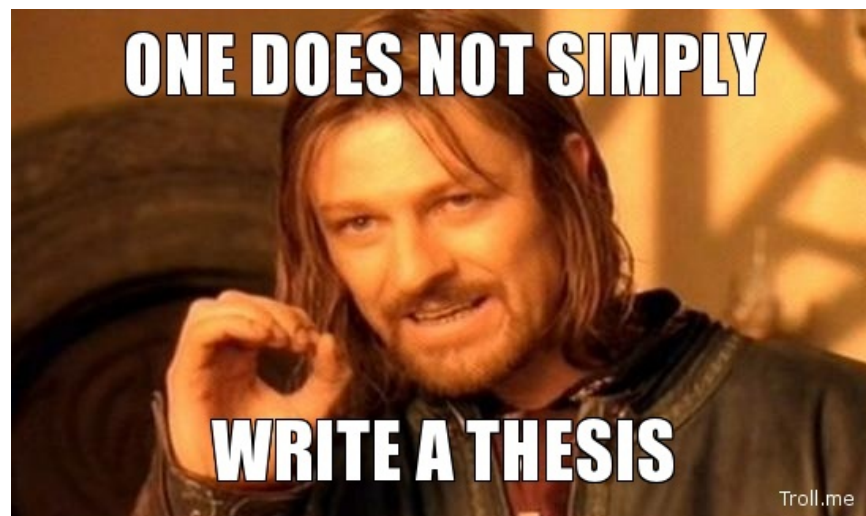
- Anything you want related to computer graphics.





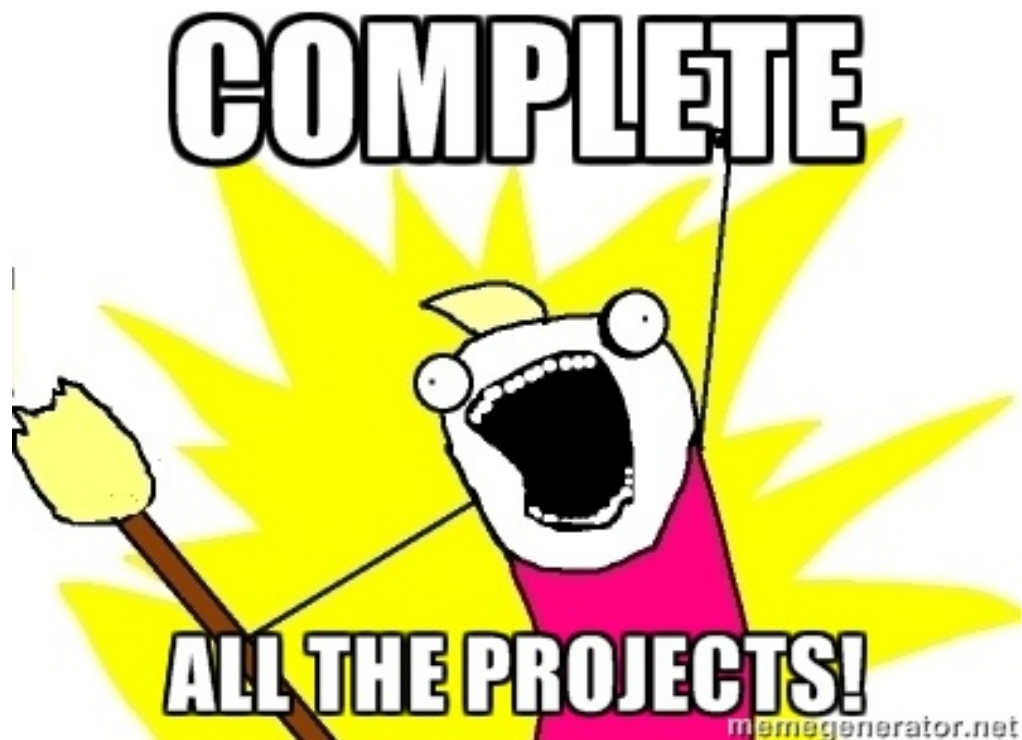
# What to do?

- Practical work for a thesis
- Although you can not get credited twice for the same work...
- ... chances are that the practical work of your thesis is more then the credits given.



# What to do?

- Work on some pet project you already have.
- You are working on it in secret anyway, right?



# What to do?

- Continue a project from another course.
- For example the CG course.

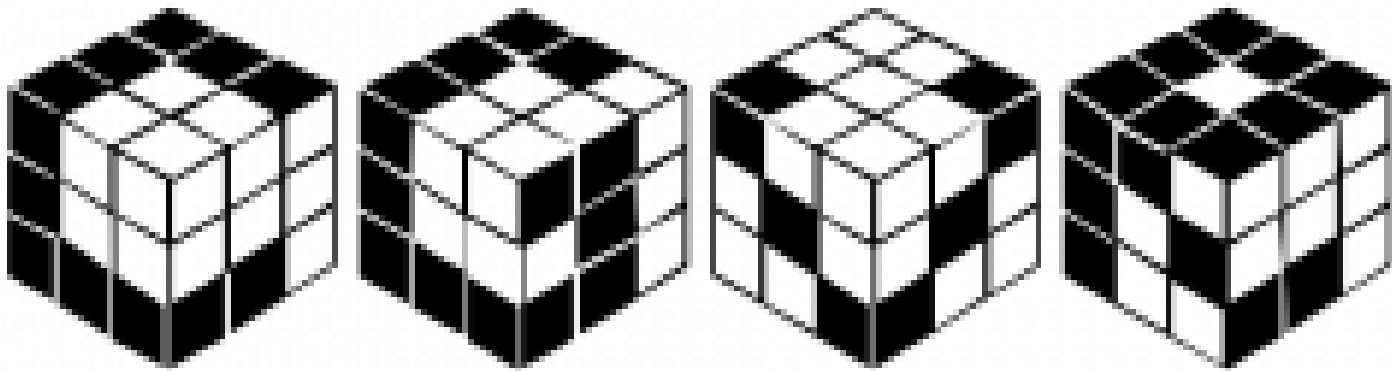


# What to do?

- Take on a new project and learn new things!



# The CGVR Lab Projects



# Paabel VR

[madis.vasser@ut.ee](mailto:madis.vasser@ut.ee)





# Paabel VR

[madis.vasser@ut.ee](mailto:madis.vasser@ut.ee)



# Paabel VR

[madis.vasser@ut.ee](mailto:madis.vasser@ut.ee)

- Learn Unreal Engine 4



**UNREAL**  
**ENGINE**



# Paabel VR

[madis.vasser@ut.ee](mailto:madis.vasser@ut.ee)

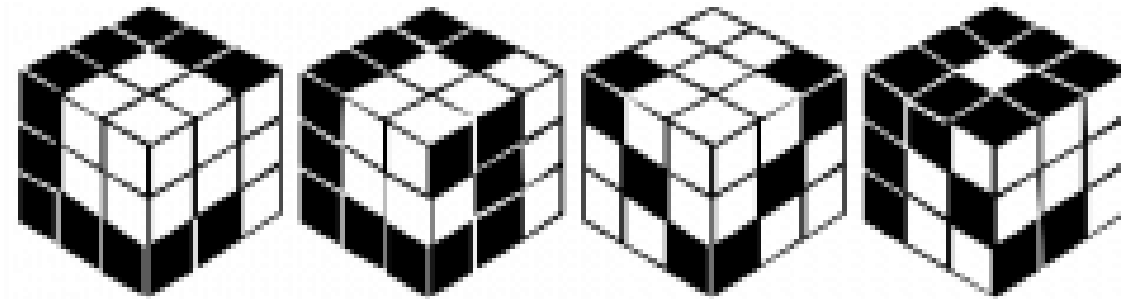
- Learn Unreal Engine 4
- Possibly get your first VR dev experience



# Paabel VR

[madis.vasser@ut.ee](mailto:madis.vasser@ut.ee)

- Learn Unreal Engine 4
- Possibly get your first VR dev experience
- Get access to the CGVR Lab



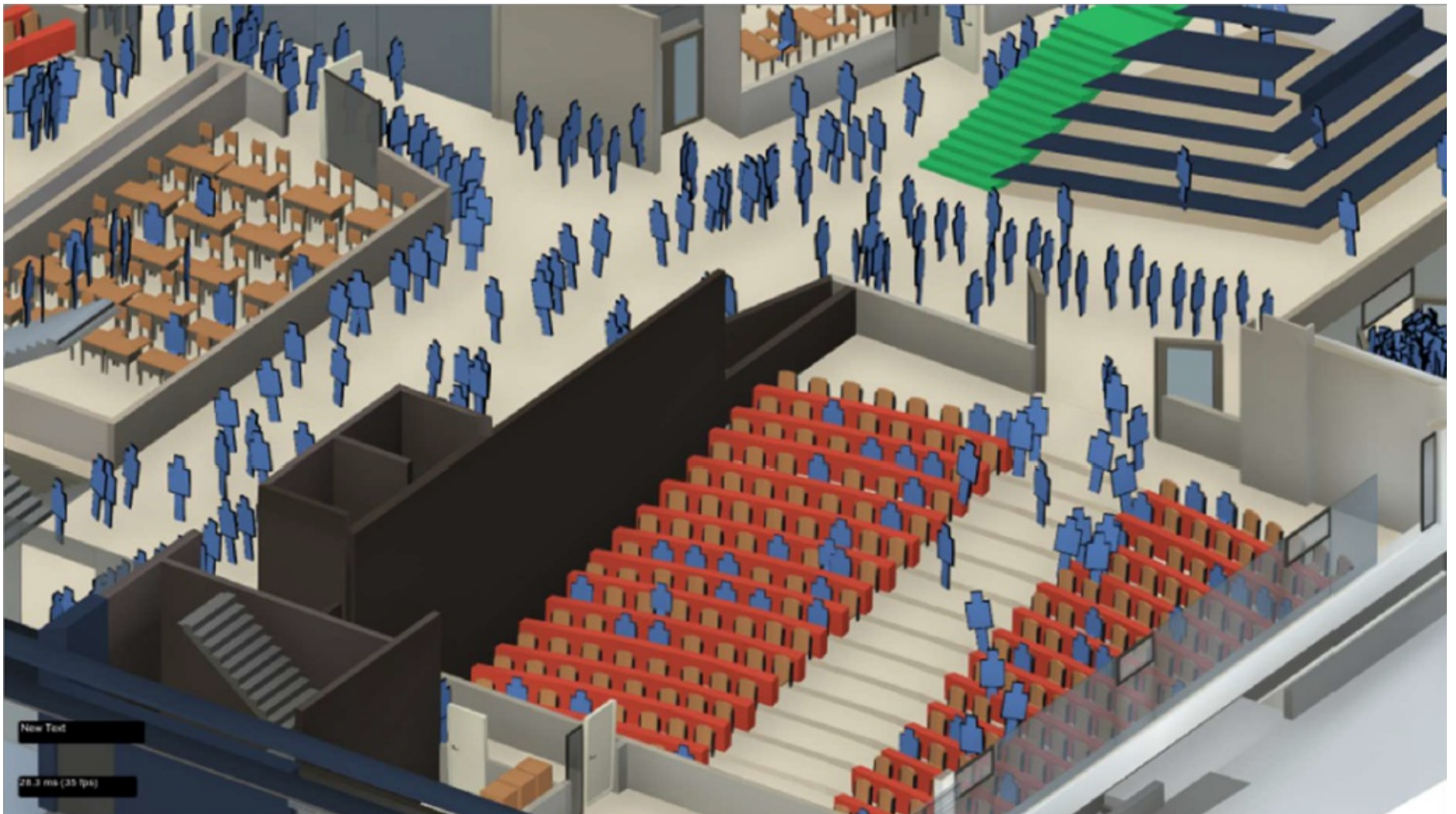
# Paabel VR

[madis.vasser@ut.ee](mailto:madis.vasser@ut.ee)

- Learn Unreal Engine 4
- Possibly get your first VR dev experience
- Get access to the CGVR Lab
- Be assisted by professionals (Madis & Ats)



# Delta Building Visualization



# Delta Building Visualization

- Advance your skills in Unity



# Delta Building Visualization

- Advance your skills in Unity
- Get experience working on a non-solo project

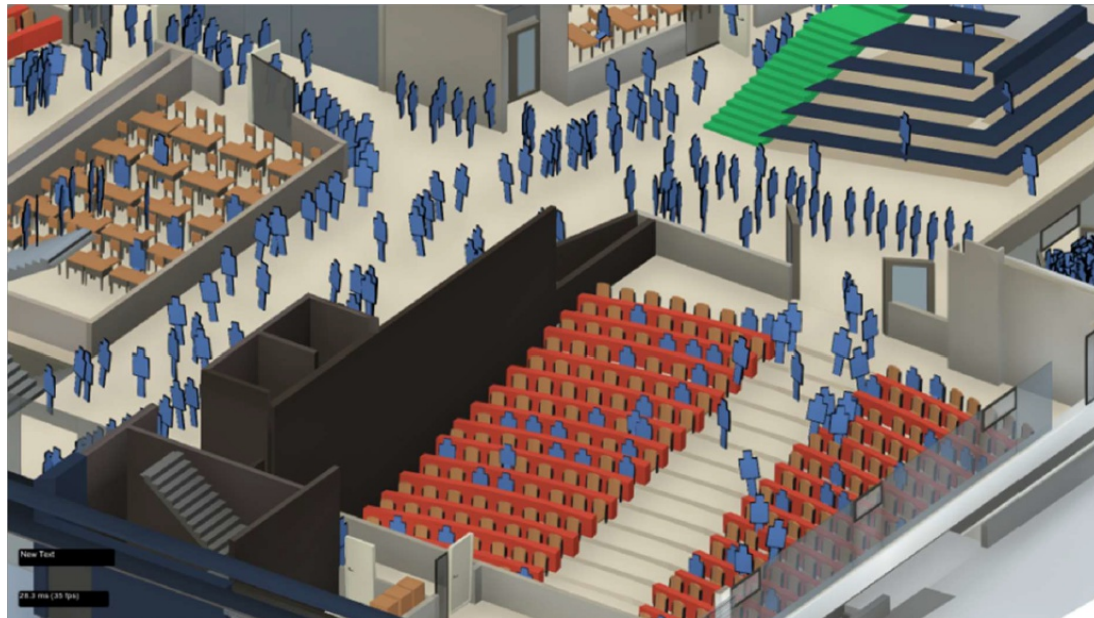


GitLab



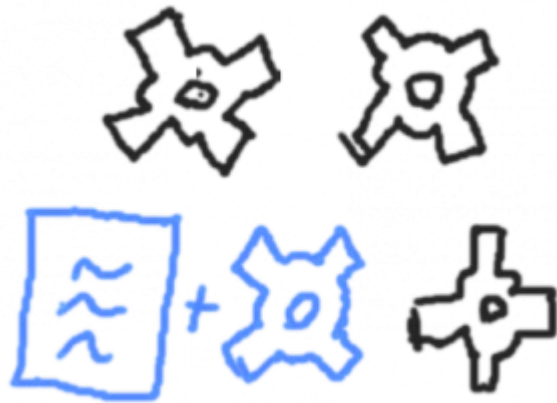
# Delta Building Visualization

- Advance your skills in Unity
- Get experience working on a non-solo project
- Learn how to optimize in Unity



# Delta Building Visualization

- Advance your skills in Unity
- Get experience working on a non-solo project
- Learn how to optimize in Unity
- Possible BSc or MSc thesis!



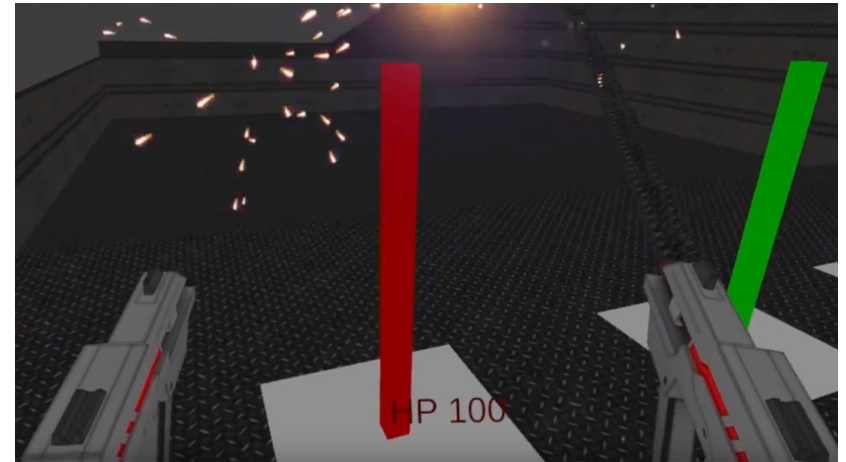


# Inspiration

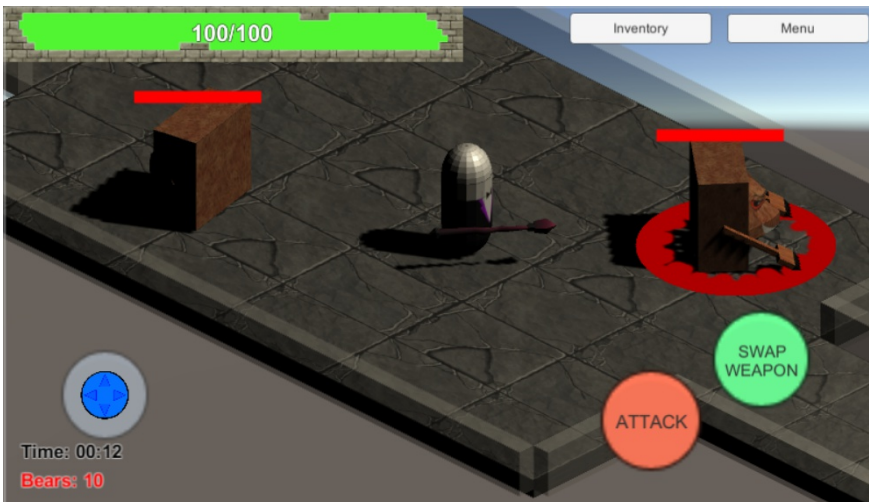
<https://cgvr.cs.ut.ee/wp/index.php/student-projects/>



Reality: B by Kalle Ever



Vrena by Jens-Stefan Mikson



Crazy Doom Dungeon by Diana Algma and Marko Täht



VR Stealth by Andreas Sepp

# Project Management

- Have a plan!
  - You can always change the plan.
  - A plan is better than no plan!
- Plan should consists of:
  - What do you want to have done?
  - General steps in what order you do things.
  - Required technologies (if applicaple)
- Sould not consist of:
  - Detailed descriptions of every milestone...



# Project Management

- Milestone
  - What are you going to do in the next 2 weeks?
  - Some specific feature?
  - Include the estimated research time
  - Include the estimated debugging time
  - **Make sure you stick to the goals you proposed!**
  - Roughly 7h of work.



You can find 7h in 2 weeks, right?

# Project Management

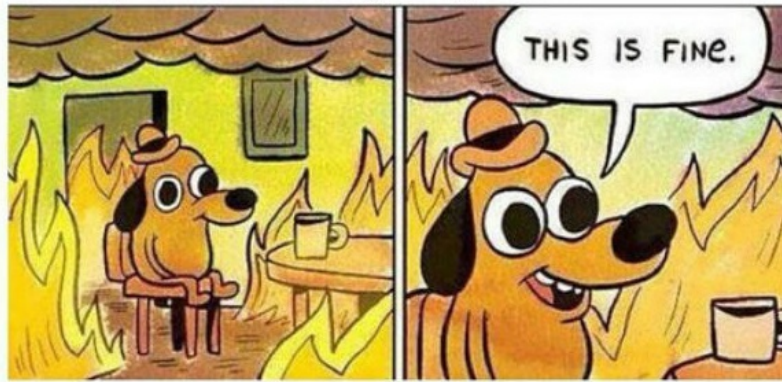
- Motivation
  - So you want something done by the end?
  - Do a little bit throughout the semester.
  - Little bit means a new feature in 2 weeks.
  - Does not have to be a big feature ...
  - ... but does have to work!

Milestone is a **promise to a client** of what will definitely be done and working.



# Project Management

- When in trouble: **ASK FOR HELP!**



- Also:
  - Keep your milestones very small, but concrete!
  - Do not restart or permanently delete your project!
  - Ask for help from:
    - CGVR lab people (Ats, Madis and Raimond)
    - Fellow students
  - Be positive!

# Project Management

- Final Presentation
  - Finally you have implemented ~6 features
  - This means that you probably have a pretty solid result
  - Show this result to others
  - Compare it with your original project plan
    - Does not have to match
  - Think about how to continue...





# Questions?



# Your Project?

- What do you call it?
- Which group will you be in?
- Want a joint project with another student?

