

A?

Aalto University
School of Arts, Design
and Architecture

Coding Virtual Worlds Clean Code

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Today's outline

- **Administration**
- **Discover VR**
- **Feedback on last assignment**
- **Unity for VR**
- **Prepare for the next assignment**

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Administration



Any Questions?

- **USB-C cable and Face Mask? - Pick up at Väre Takeout**
- **Slack Communication**

The background of the image is a dark space filled with a glowing yellow grid of light lines. The grid is composed of vertical and horizontal lines that curve slightly, creating a sense of depth and perspective. In the center of the image, there is a white, arched doorway or entrance. Above the doorway, there are several small, glowing lights in blue, green, and red. The doorway leads to a brightly lit, futuristic interior space with various panels and structures.

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Discover VR

Discover VR

Game VR - Beat Saber, Journey of Gods, Super Hot

- **Overview Impressions - How was the game experience?**
 - **Which games did you try? For how long?**
 - **Locomotion - Was moving comfortable?**
 - **Interaction - Could you do stuff?**
 - **Playing in VR - Any thing specific/interesting?**
-
- **... break out and make a few notes together?**



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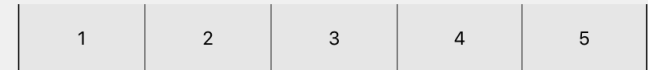
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Last Assignment

Questionnaire

How was the assignment?

Average rank ↓



Was the assignment interesting/informative? (1 = not at all; 5 = highly) 3.7

Was the tutorial useful? (1 = not at all; 5 = highly) 2.7

How difficult was the assignment? (1 = Very Easy; 5 = Impossible) 3.3

Responses	1	2	3	4	5	Total
Was the assignment interesting/informative? (1 = not at all; 5 = highly)	1 (10%)	0	2 (20%)	5 (50%)	2 (20%)	10
Was the tutorial useful? (1 = not at all; 5 = highly)	1 (10%)	5 (50%)	0	4 (40%)	0	10
How difficult was the assignment? (1 = Very Easy; 5 = Impossible)	0	1 (10%)	5 (50%)	4 (40%)	0	10

Questionnaire

Time Management

How many hours did you spend on the assignment?

Respondent	Response
2	8
1	9
2	10
2	12
1	15
1	16
1	20

Questionnaire

What was the hardest part of the assignment?

- ***Figuring out how to read inputs from the controllers was the hardest thing.***
- ***the new tutorials seem to follow the new input manager system which is totally different than the "Legacy input manager"***
- ***I found XR Interaction Toolkit quite badly documented, probably because it is still in preview***
- ***Look, these assignments need actual instructions. Some already obsolete messy tutorials are not something that one should expect on a university level course at a decent university.***
- ***The assignment prompt was straightforward and the task itself didn't require much in the way of code or project restructuring, but by using a fairly "bleeding edge" framework, I was sent down numerous wrong turns by out of date tutorials and advice online.***

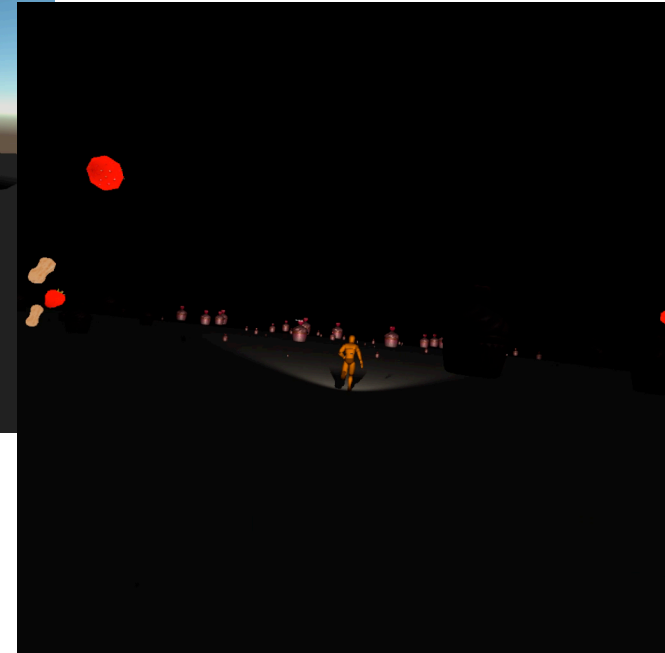
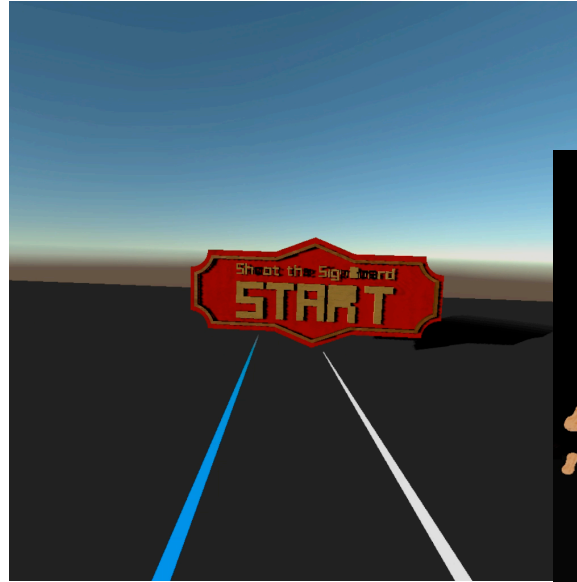
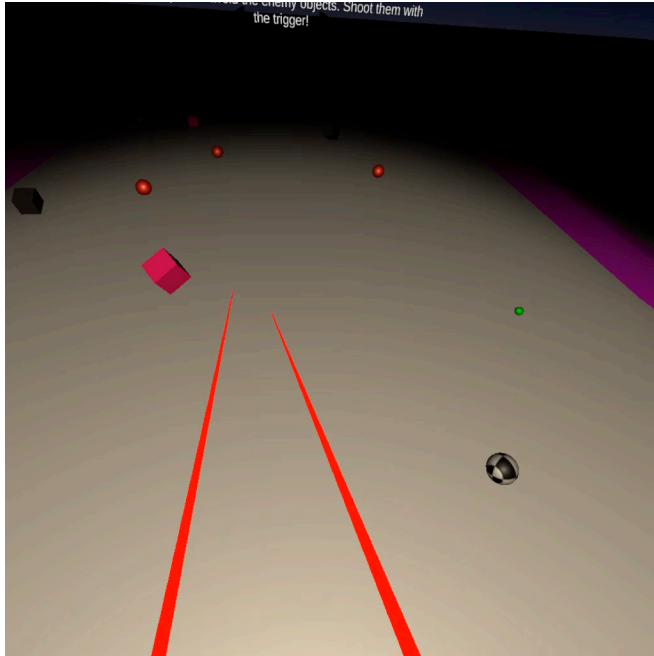
Questionnaire

Do you have further comments?

- *The tutorials weren't too useful to me aside from some things regarding the project setup and I ended up skipping almost everything as it felt like I couldn't implement anything due to either the tutorials being outdated or software/hardware incompatibilities.*
- *It was fun to explore the possibilities of XR interaction*
- *This is already the second round that the assignment does not make sense.*
- *It was encouraging to see that because we covered a lot of ground on the first assignment, making adjustments to our inherited project was pretty quick.*
- *Really exciting to see my own project come alive in VR environment!*
- *I would also prefer to maybe start a new VR project*

Feedback on last assignment

A few examples



Challenges & Topics for Workshop

- **Pair Assignments - How was it?**
- **Tutorial - Not useful?**

Workshop Topics

- **XR Input System**
- **XR Interaction debugger**
- **Mock HMD / Non-VR development**
- **Code Review**

Next Assignment

Goal - Clean up VR

Consolidate

Clarify

Clean Up

No new task/content - except you want to



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Clean Code



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Next Assignment

Assignments Submission

- **Please indicate your name and project name in the .apk submission.**

Next Assignment

Goal - Clean up VR

Tasks:

- Refine your project:
- Make sure you have a VR camera in the scene
- The player needs to be able to control themselves/their avatar object with the Oculus Controllers (i.e., the joystick).

Deliverables: .APK

Bonus Task:

- Implement an grab-interactable object
- For example: A ball the player can throw onto the field or a "gun" (generics are perfectly fine) to shoot obstacles with.

Next Discover VR

Locomotion

Try

- National Geographics (Antartica Scene)
- The Under Presents