

# Rapid prototyping

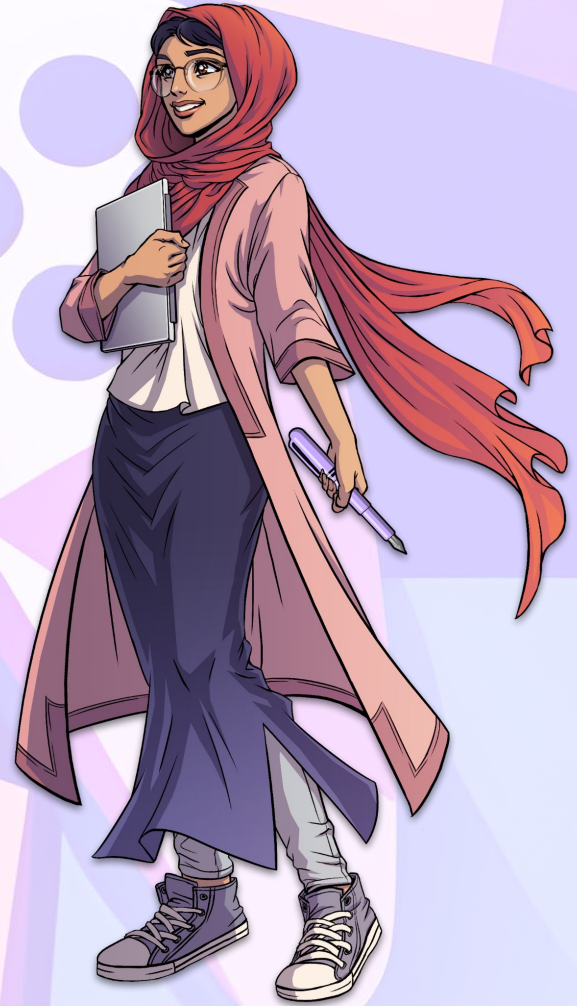
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# This lecture

1. Introduction to Rapid Prototyping
2. The Prototyping Process
3. Tools and Technologies
4. User Experience (UX) Considerations
5. Failure and Learning
6. Scope Management
7. Team Collaboration
8. Documentation



# Who am I?



**Anna Högberg Jenelius**

*any pronouns*

Indie Game Developer/Consultant

Games since 2011

Indie since 2015

Valiant Game Studio since 2017

Credit on 40+ titles

Based in Stockholm, Sweden



Stockholms  
universitet



**CULT**

*Star Stable*



**DOUBLE  
MOOSE**



**paradox  
INTERACTIVE**

**LION BITE**



**FUTURE  
GAMES**

**Talecore  
STUDIOS**



**Climate  
re:play**

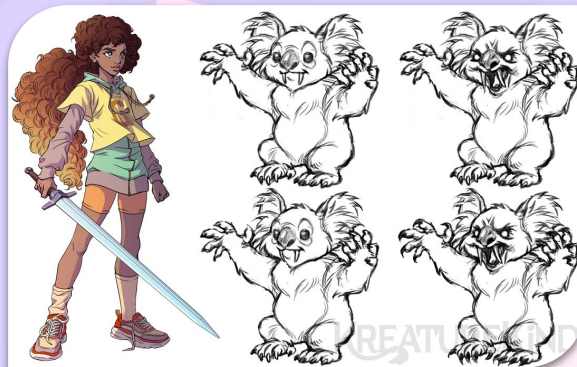
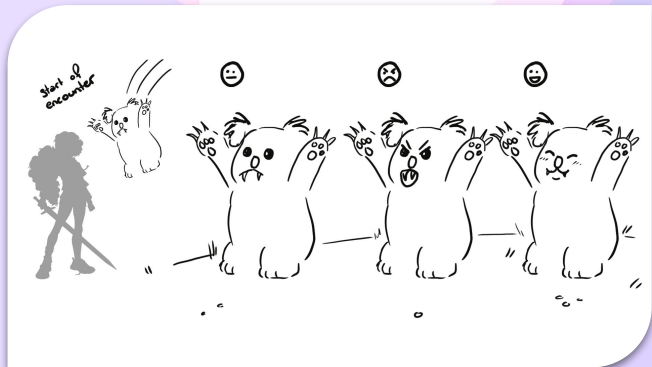
# What is rapid prototyping?

Rough sketch, first draft

Fast ideation

Trial and error

Build something quick, learn from it





# Game jam games = prototypes



# Why is it important?

Game development is expensive

Cheap way to try ideas

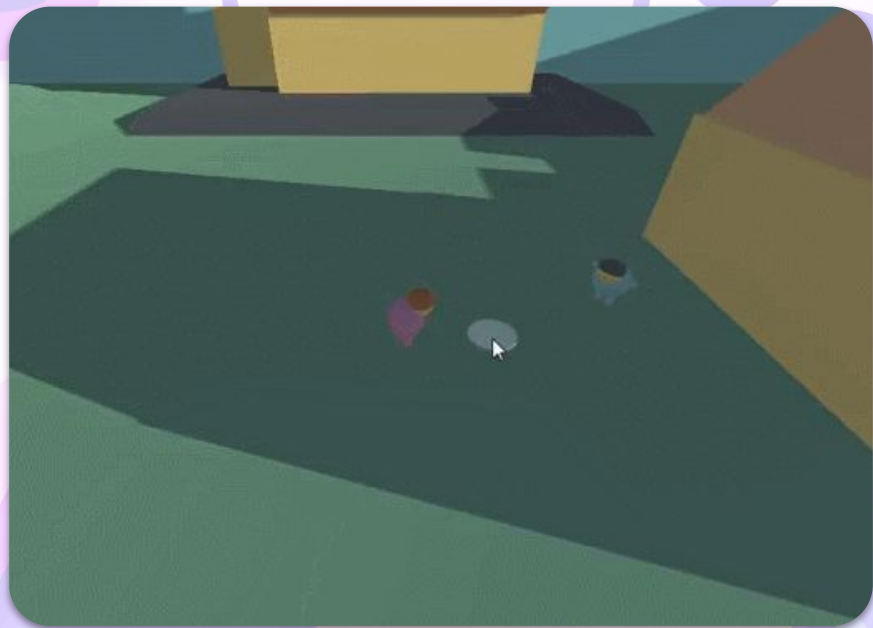
Fail fast

Kill your darlings

Listen to the facts



# Example: Pendula Swing



# Example: Pendula Swing





# The Process - Idea generation

Brainstorm

Never say no

“Yes, and”

Let the inspiration flow!

*Light* topic research

Market research

## Girl, 8, pulls a 1,500-year-old sword from a lake in Sweden

🕒 4 October 2018



JONKOPING COUNTY MUSEUM

# The Process - Initial concept design

Focus on core concepts

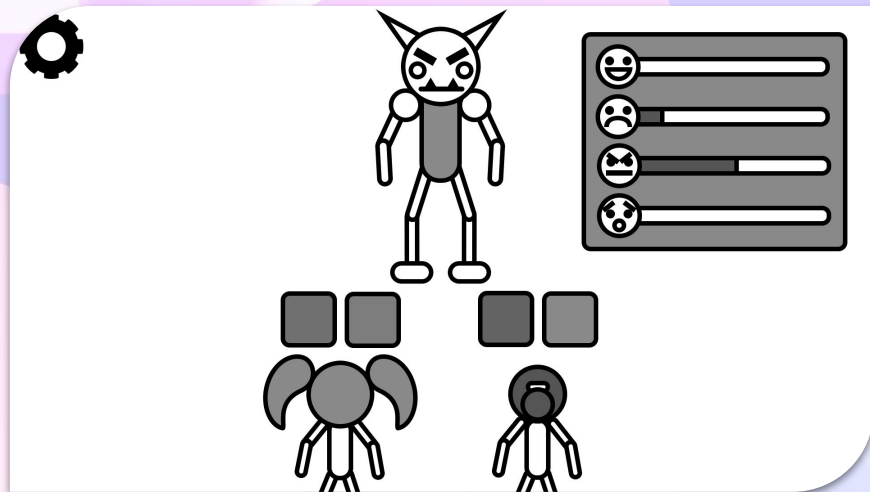
MVP = Minimum Viable Product

MLG = Minimum Lovable Game

What is this for your game?

What will make people “get it”?

Mockups, storyboards, moodboards



# The Process - Paper prototyping

Literal paper

Board game tokens

Play with each other

Try on friends

Gather feedback

Works better for some genres than others!



# The Process - Digital prototyping

Implement feedback

Focus on the core

No fluff, no juice, no polish

A few, representative art pieces

Gameplay is king





# The Process - Iteration

Test, test, test!

Change, change, change!

Nothing is sacred, kill quickly

Feel free to kill idea at any step!

Move on to the next idea



# The Process - Evaluate ideas

What resonates with people?

What *can* you make?

What will give best ROI?



# Tools and technologies - Engines



**Unity**



**UNREAL  
ENGINE**



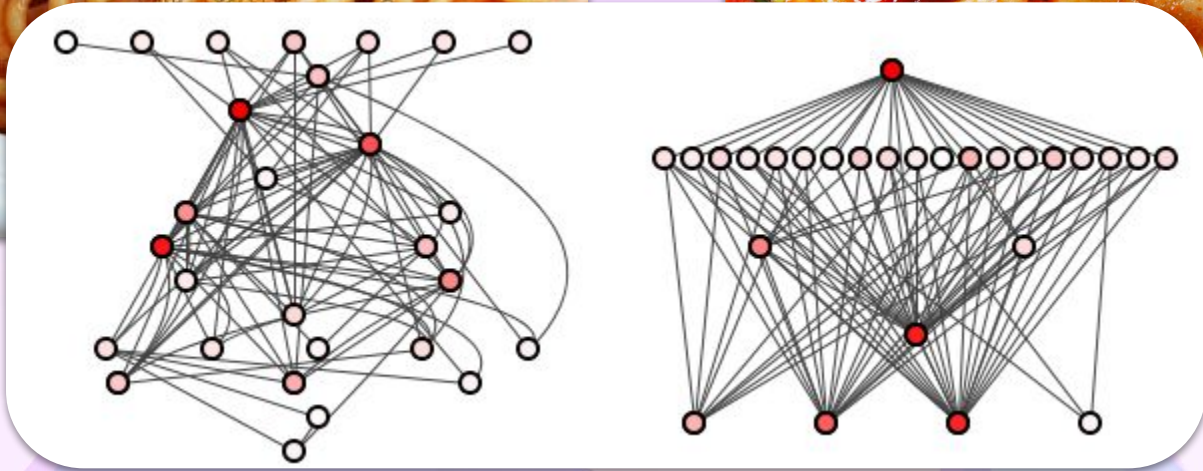
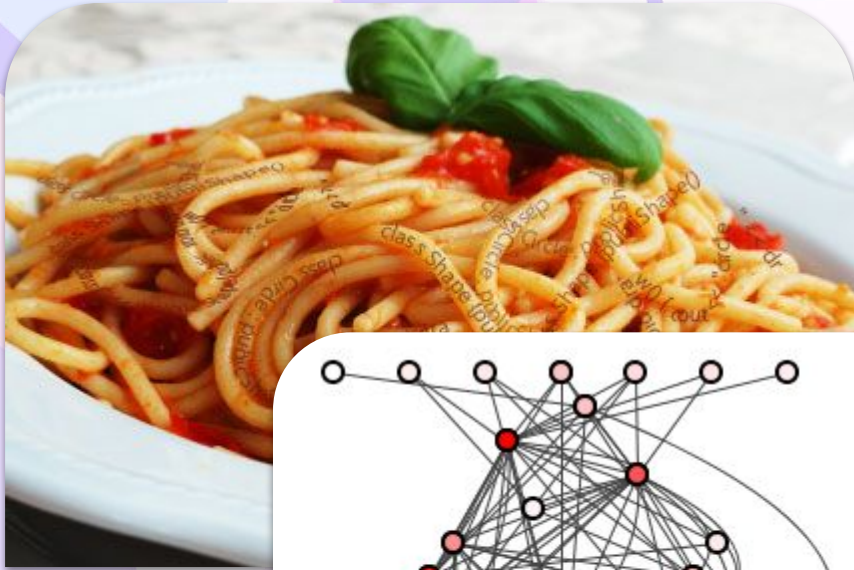
**GameMaker™**



**GODOT**  
Game engine

**ROBLOX**

# Don't worry about code architecture





# Smoke and mirrors

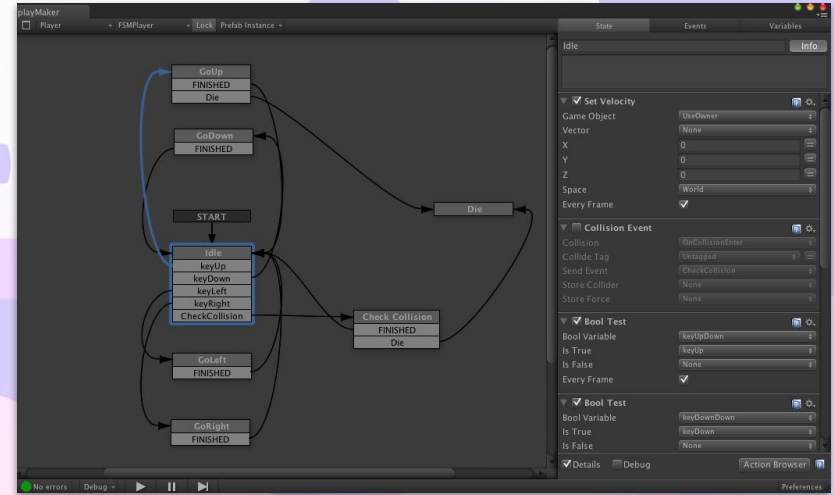
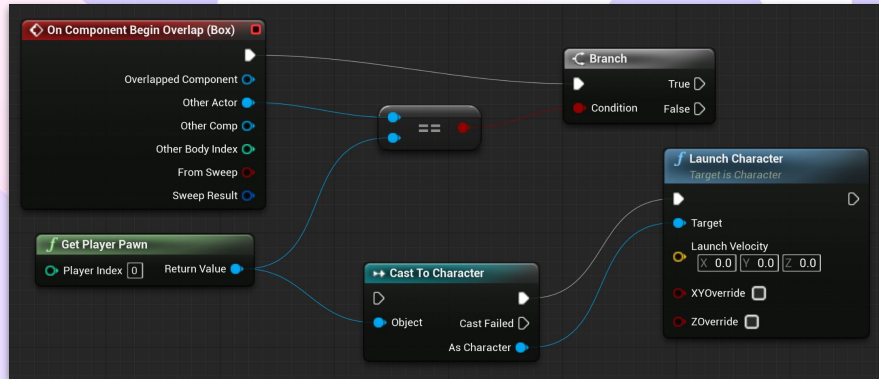
Hard code

Script things that would be dynamic

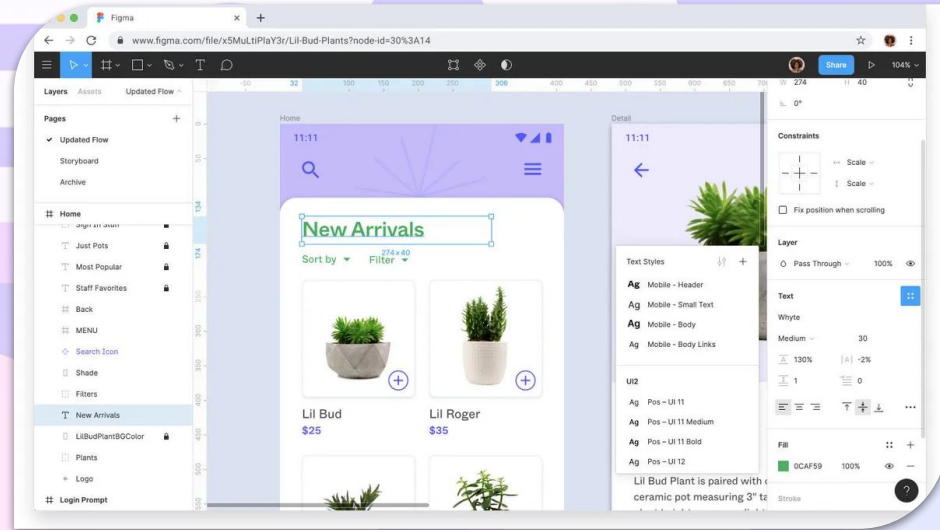
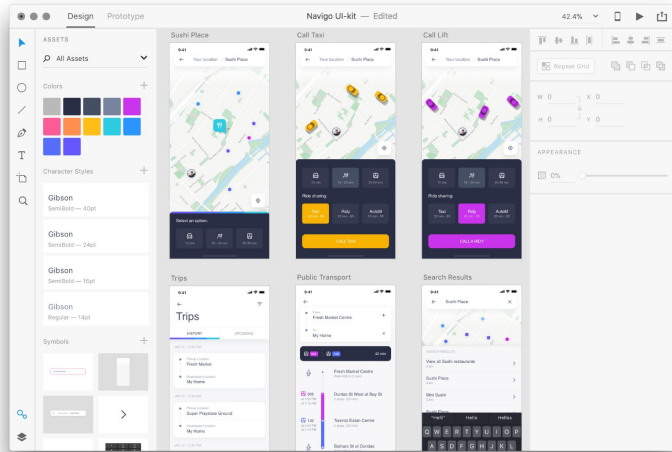
Give a good experience - *once!*



# Tools and technologies - Visual scripting



# Tools and technologies - UI mockup tools



# UX focus

UX = User Experience

There is no time for tutorials

The user needs to understand right away

Clear feedback systems, intuitive controls

Focus on the experience of the user!

User testing is key





# Failure and learning

“Fail fast”

It's not actually failure - you're *learning*

Your idea might be horrible or amazing - unless you try it, you will never know

You want to know this now, not when the game releases



# Scope management

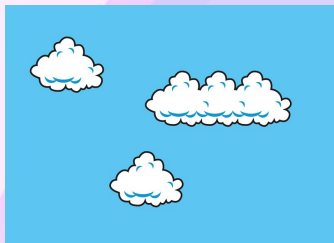


Core Feature

**Focus on this!**



Nice-to-have



Fluff/Polish

# Scope management



If you want this



Start with this



Or you'll end up with this

Not like this....



1



2



3



4

Like this!



1



2



3



4



5



## How to build a restaurant like business with Minimal Viable Product

1



2



3



4



## How to build a software product with Minimum Viable Product

1



2



3



4



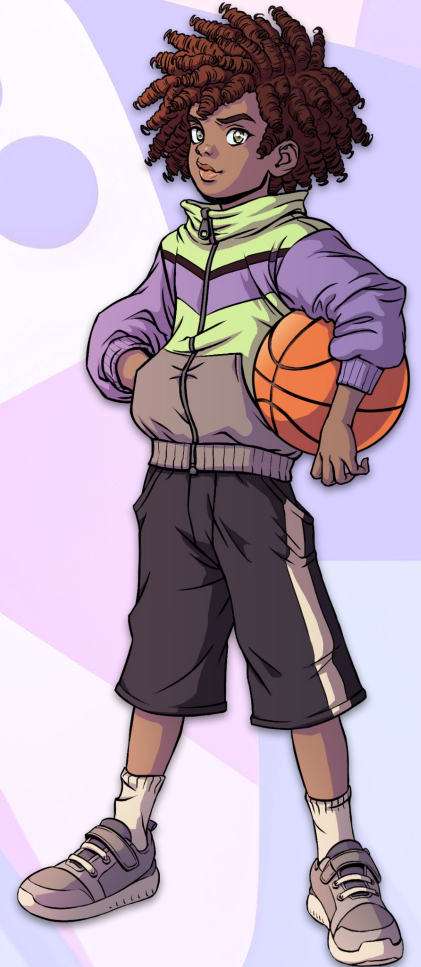
# Team collaboration

Clear roles in the team

Help and support each other

“Yes, and”

Communicate!



# Documentation

Document the process:

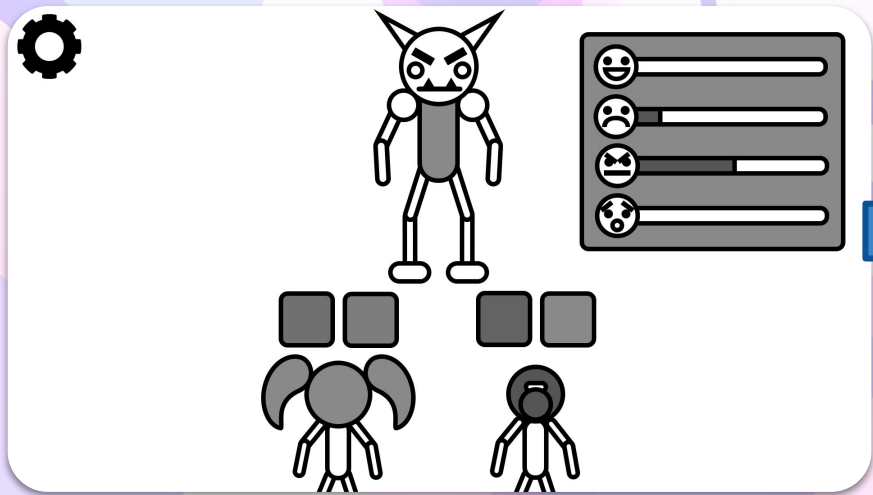
- Design decisions
- Iterations
- Lessons learned

Organize documentation

For posterity!

Save builds, make videos, take screenshots, photograph





*(This level of detail is beyond the scope of this course)*

# Summary

Focus on the MVP

User-centric

Fail fast, and learn

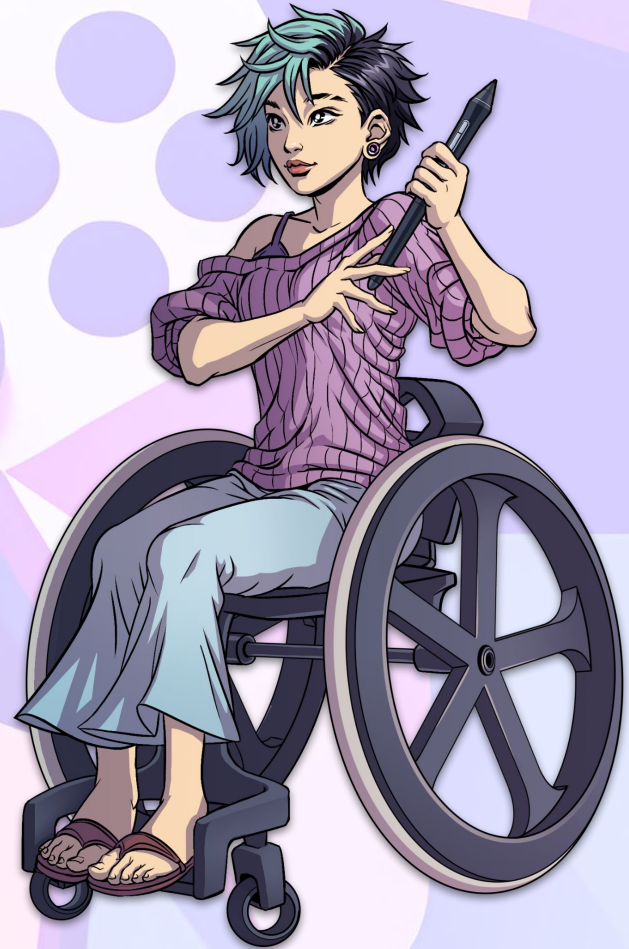
Smoke & mirrors

“Yes, and”

Iterate

Take care of yourselves, and each other

Document





# Questions?

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