

Attendance check

- ▶ It is your responsibility to **activate the app** or let the professor know your attendance.
- ▶ If your attendance could not be checked for some reason, please let the professor know **at the same day**.
 - ▶ I'm not going to change your attendance status later.
 - ▶ No change of your status, once the day has passed

Game Design

Game design lectures

- ▶ I will give a talk about the game design for **around a month**.
- ▶ Each lecture does not take long. (**around 30 min**) I will give you the remaining time to discuss on your project for the rest of class.

What is games?

- ▶ A game is an activity that:
 - ▶ requires at least **one player**
 - ▶ has **rules**
 - ▶ has a **victory condition**.
- ▶ Then, what is video games?
 - ▶ A video game is a game that is played on **a video screen**.

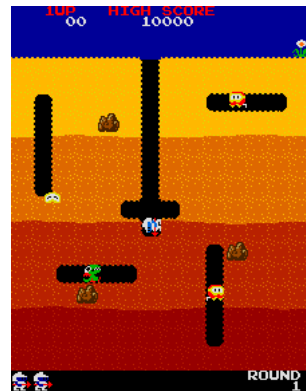
Game Genres

Game Genres

- ▶ Gaming has splintered off into many different genres and subgenres
 - ▶ Action
 - ▶ Shooter
 - ▶ Adventures
 - ▶ Construction/management
 - ▶ Life simulation
 - ▶ Music/Rhythm
 - ▶ Puzzle
 - ▶ Sports
 - ▶ Strategy
 - ▶ Vehicle simulation

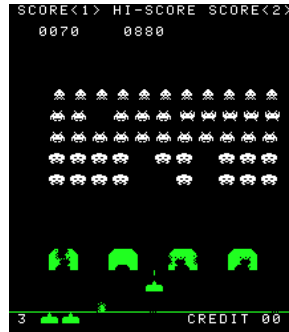
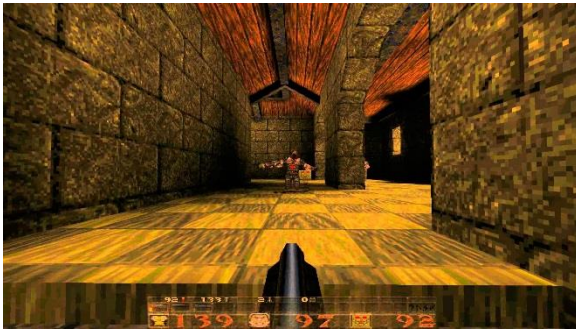
Action games

- ▶ Action-adventure : *Tomb raider series, Prince of Persia*
- ▶ Action - arcade : *Dig Dug, Diner Dash*
- ▶ Platformer : *Super Mario series*
- ▶ Stealth : emphasis on avoiding enemies rather than directly fighting them
- ▶ Fighting : *Street Fighter*



Shooter games

- ▶ Focus primarily on firing projectiles at enemies
 - ▶ First person shooter : a shooter as seen from the player ' s perspective, *Quake*
 - ▶ Shoot ' em up : players shoot large quantities of enemies while avoiding hazards : *Space Invader*
 - ▶ Third person shooter : the camera is placed further behind the player, *Grand Theft Auto (GTA series)*



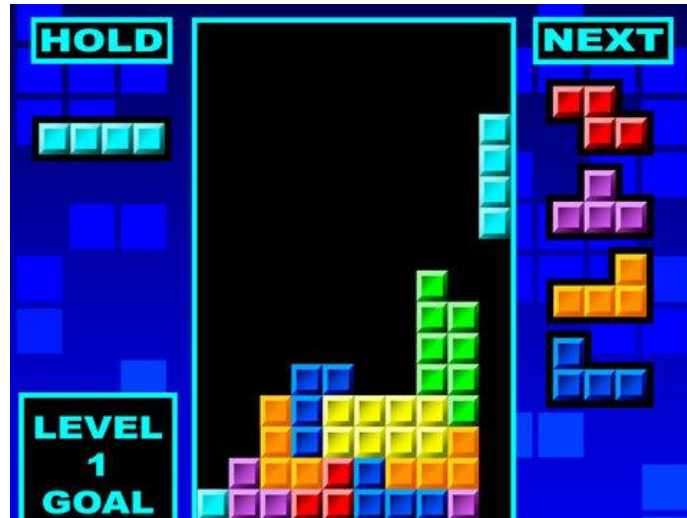
Adventure games

- ▶ focus on puzzle solving, and item collection and inventory management
 - ▶ RPG game(Role Playing Games) :Players choose a character class and increase their statistical abilities through combat, exploration, and treasure finding,
 - ▶ Massively multiplayer online role - playing game (MMORPG) : an RPG that can support hundreds of players together in one environment , *World of Warcraft*



Puzzle games

- ▶ Based on logic and pattern completion (*Tetris*)



Strategy game

- ▶ **Thinking and planning** are the hallmarks of strategy games
 - ▶ Real-time Strategy : Focus on “four E ’ s ” : expansion, exploration, exploitation, and extermination, (*Command and Conquer*)
 - ▶ Turn - based : *Sid Meir’ s Civilization*
 - ▶ Defense game : players create automated **projectile - shooting** “ towers ” that keep enemies at bay.



- ▶ Modern games combine several genres and subgenres.

Instant survey... (5 min.)

- ▶ What is your favorite game nowadays?
 - ▶ PC/Mobile/Console...
- ▶ Search the screenshot of the game and post it on padlet please

<https://padlet.com/mksung89/favorite>

Who makes this stuff?

Who makes this stuff?

▶ Programmer :

- ▶ Using programming languages such as C++ and Java, a programmer writes the code that allows a game's text and graphics to be displayed.
 - ▶ Need understanding of mathematics, 2D/3Dgraphics, physics, particle systems, user interface, artificial intelligence, input devices, and computer networking

▶ Artist

- ▶ Concept artist :
 - ▶ uses both traditional medium and computers to draw game characters, worlds, and enemies.
- ▶ Storyboard artists :
 - ▶ Illustrate the game's cinematics and sometimes elements of gameplay design to be passed along to other artists and animators
- ▶ And more
 - ▶ 3D Modelers, Environmental artists, Texture artist, Visual effects artists, Animators....

Who makes this stuff?

- ▶ Designer (a.k.a : Director, planner, lead designer, or senior game designer)
 - ▶ Create the ideas and rules that comprise a game
 - ▶ Must be able to tell the difference between a good and bad game, and be able to tell why?
 - ▶ Different designer
 - ▶ **Level designer** : build “grey box” worlds using 3D programs, and populate the levels with everything from enemies to treasure
 - ▶ **System designer** : develop how the game elements relate to one another, whether it is the game’s economy or technology tree
 - ▶ **Creative director** : maintains the **vision of the game** while supervising the other designers

Who makes this stuff?

- ▶ Producer : *Overseeing* the **entire game development team**
 - ▶ Hiring and building teams
 - ▶ Writing contracts
 - ▶ Contributing to the game' s design & managing the team' s work
 - ▶ Scheduling
 - ▶ Balancing the game' s budget
 - ▶ Resolving disputes between designer & programmer

Who makes this stuff ?

▶ Tester

- ▶ A good tester has patience, persistence, and great **communication skills** to **report back any problem** (bugs)
- ▶ Quality assurance (QA) is crucial to the successful completion of a game

▶ Composer

- ▶ Make a game music

▶ Sound designer

- ▶ Creates all the **sound effects** that are used in a game
- ▶ a good sound designer needs to understand the game he is working on and how to create sounds **that help the player with the game.**
- ▶ Sound can provide **very important information** to player (danger, happiness..)

Who makes this stuff ?

▶ Writer

- ▶ video game writers are usually hired pretty late in the game's production process.
- ▶ a writer is not usually a full-time team position (maybe freelancer)
 - ▶ To rewrite the design team's story
 - ▶ To write dialogue for the game characters
 - ▶ To write the games manual and any fictional support material, such as character biographies, that will appear on the publisher's website.

Game Design

Making a game..

The average party conversation goes like this.....

So, you program
video games?
Is it hard to
write all of
that code?



No, I said
I design games.



Oh, so you
draw the
characters?
That must
be fun.



No, I don't
draw them.
That's what
an artist does.



I don't get it.
If you don't
code the games
or draw the games
what *do* you do?



Apparently
nothing.



Game ideas : Where to Get Them and Where to Stick Them ?

- ▶ Many game ideas often **sound stupid**. Try these on for size:
 - ▶ A yellow creature eats dots while being chased by ghost monsters.
 - ▶ PAC-MAN
 - ▶ A plumber jumps on the heads of mushrooms to find his girlfriend.
 - ▶ SUPER-MARIO
- ▶ These stupid ideas became great games...

“Every good idea borders on the *stupid*.”

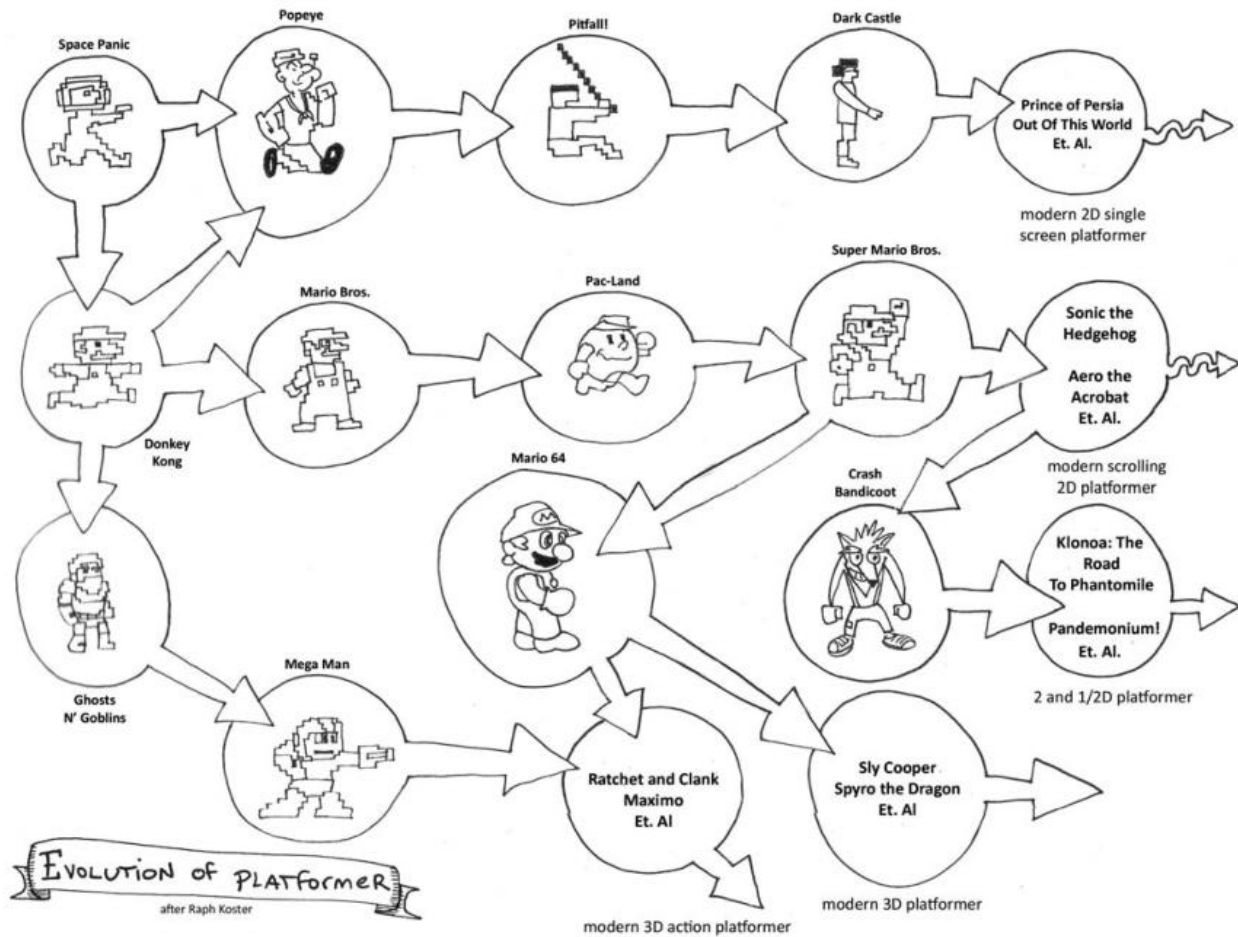
– Michel Gondry

Where do I get my own stupid ideas to turn into video games?

- ▶ Read something you **normally wouldn't read**.
 - ▶ Some ideas can come from non-game related books : Japanese gardening, architectural design, and biology...
- ▶ Take a walk, drive or shower
 - ▶ When your brain is being occupied by a familiar activity like walking or driving, then your **subconscious is free to start wandering and making connections** it would normally never make.
 - ▶ When I did my research, all the problem are solved when I'm walking street or while I'm sleeping. (Yes, that is true...)
- ▶ Attend a lecture.
 - ▶ Attend **game development conferences and exhibitions**
- ▶ Play a game, preferably a **bad** one
 - ▶ As you play a bad game, look at the things in the game that were done poorly. Then think about what you would do to **improve them**.

Great ideas are not always good ideas...

- ▶ Is it implementable?
 - ▶ Great ideas are useless if they are not implementable...
- ▶ Is it marketable?
 - ▶ make a game that will sell
- ▶ Many great games have predecessor..
 - ▶ There are many great games inspired by other games.



Inspirations

- ▶ **Space Panic' s (Universal, 1980)** walking character climbed ladders and dug holes to temporarily stun enemies.
- ▶ **Donkey Kong (Nintendo, 1981)** added jumping and a power- up that could defeat enemies.
- ▶ **Popeye (Nintendo, 1982)** introduced moving collectables and environmental mechanics that the player could interact with.
- ▶ **Pitfall! (Activision, 1982)** added alternate moves including vine – swinging and hopping on alligators ' heads.
- ▶ **Mario Bros. (Nintendo, 1983)** added a second player and enemies that could be defeated by the player ' s skill rather than just a power-up.
- ▶ **Pac - Land (Namco, 1984)** featured a world map, a variety of themed levels and dynamic hazards.
- ▶ **Ghosts ' N ' Goblins (Capcom, 1985)** featured multiple weapons including projectiles, health (in the form of armor that shattered off), and combatable “ boss ” monsters.
- ▶ **Super Mario Bros. (Nintendo, 1985)** launched a wave of imitators who were inspired by its tight controls, whimsical environments, and creative level design.
- ▶ **Dark Castle' s (Silicon Beach Software, 1986)** hero Duncan could “ hide ” from enemies. It was also the first game where players didn ' t immediately die from falling, but rather ended up in the dungeon.
- ▶ **Mega Man (Capcom, 1987)** introduced themed stages ending with similarly themed bosses who possessed powers that could be gained by the player once they were defeated.
- ▶ **Crash Bandicoot (Universal, 1996)** used 3 - D models and environments to create the camera view called “ 2.5 - D.”
- ▶ **Mario 64 (Nintendo, 1996)** brought all of the gameplay of the Mario platform games into true 3 - D

Good games

- ▶ Games should make players feel **something that they aren't in the real world**: powerful, smart, sneaky, successful, rich, bad, or heroic.
- ▶ When you design your games, you have to keep asking “**What audience is my game for?**”
 - ▶ Is it casual game? Is it hard core game?
 - ▶ You can rule out certain design decisions early on by setting the audience in stone near the beginning of the idea development process.
 - ▶ What is the **age of my audience?**
 - ▶ Kids always want what is made for an audience older than their own age group. For example, an 8 - year- old kid wants to play a game that is made for a 10 - year- old kid
 - ▶ A 10 - year- old kid wants to play a game that is made for a 13 - year- old kid

Fun

- ▶ Fun of games is not always come from **good game design**
 - ▶ Game idea (or mechanic, or boss fight, or whatever) can sound fun “**on paper**” but **may not be fun once you get it working in the game**. Or it may work, but **only be fun to you**
- ▶ “Fun” is **very subjective** and change over time
 - ▶ Even if I find something **fun the first time I play it**, it will almost certainly **not be fun on the hundredth go**.
- ▶ How to make game fun in designing : “**theory of Un-Fun**”
 - ▶ Start with a “ fun ” idea. As you develop the game, if you find something in the game that is **not fun** (or un - fun), then **remove it**. When you have removed all of the un - fun, then all that should be left is the fun

Brainstorming

Preparation for brainstorming

- ▶ A working brain
- ▶ Something to write with (pen, keyboard)
- ▶ Something to write on (paper, notepad)
- ▶ A place to work
- ▶ Collaborators, preferably ones who also have working brains.

Now, its time to pick rough ideas of your games

- ▶ Genres
 - ▶ Pick a genre and stick with it
 - ▶ You can pick two genres and mix them together.
 - ▶ But, I would not recommend it because it makes your game complicate, even though it may looked quite creative.
- ▶ Platforms?
 - ▶ PC / Mobile
- ▶ 2D / 3D
 - ▶ Camera setting
- ▶ Single or Multi player?
 - ▶ If it is multi-player games, then how many players can play?
- ▶ Target Audience?
 - ▶ Adult / Kids
- ▶ Features?
 - ▶ This is the most important thing. What make your game unique?

Brainstorming : coming up with an idea

- ▶ There is no such thing as a stupid or bad idea. **Say yes to everything at this stage**
- ▶ Collaborate with people from other disciplines : programmers, artists, testers, writers
 - ▶ More diverse, more better
- ▶ Think about all the things you want your game to be. **Then write them down. (You have to write down every ideas..)**
- ▶ Think about game box design (CD case..)
 - ▶ What is the **KEY features** of your games?
 - ▶ What is the **advantages of your game** over other games?

Screening of your ideas -> narrow down to 20 ideas

- ▶ Technical Feasibility: The programmers don't know how to implement the properly.
- ▶ Market Opportunity: The marketing people doesn't think there's a market for the idea.
- ▶ Artistic Considerations: The development team decides they just don't like the idea.
- ▶ Design Experience: The designers don't think they can make engaging gameplay based on the idea.
- ▶ Innovation Needs: The idea just isn't innovative enough to stand out from the competition.
- ▶ Business and Cost Restrictions: The projected revenues for the idea are less than the projected costs of implementing it.

Get some help from ChatGPT

- ▶ Remember that ChatGPT is not a god. They makes some mistake.

- ▶ Provide detail “context” as prompt

You’ve been tasked with combining two core mechanics (Idle and Merge) and creating a hybrid casual game set in Victorian England. Draw inspiration from current trends and top-grossing games in the genres of Idle, Arcade, Simulation, and Hyper-casual. Write a brief concept document (1000 characters) where you describe the game idea: core gameplay — elaborate on the game cycle, mechanics, and their connections, the setting and narrative, and the unique selling point (USP) — in a way that your game will be better than what already exists in stores.

- ▶ Read following

- ▶ <https://medium.com/my-games-company/a-game-designers-new-friend-how-to-use-chatgpt-as-a-gamedev-tool-c555b2497214>

Best way of using ChatGPT

▶ Prompt Engineering

- ▶ The process of creating prompts or asking or instructions that guide the output of a language model like ChatGPT.
- ▶ It allows users to control the output of the model and generate text that is tailored to their specific needs.

▶ When you enter prompt

- ▶ Clarity yourself (I'm an game designer)
- ▶ Explain Situation (I would like to come up with an idea of 2D platform game.
The basic ideas are -----)
- ▶ Clarify the goal (Give me interesting items that player would get to increase his health)

KART RACING BRAINSTORM

SPEED RELATED:

GO SO FAST THAT YOU CAN SKIM WATER
LEAP LONG GAPS/ VIBRATE THROUGH
WALLS/ LEAVE TRAIL OF FIRE/ DODGE
BULLETS/ CREATE A SONIC BOOM/
GET BULLET-TIME (TIME SLOWS)/
AVOID DETECTION OF NON-HUMAN
DEVICE/ DRAG OTHER CHARACTERS
IN YOUR WAKE (SLIP STREAM)
DRIVE DONUTS TO CREATE TORNADO
ROCKET BOOST/ TEAM SPEED BOOST

DAMAGE RELATED:

FLAME BLAST (FROM EXHAUST OR
GOUT FROM FRONT)
BACKWARDS ATTACK - STICKY
BOMBS - BOUNCING BETTY BOMB
FORWARD ATTACK - BULLET /
HEAT-SEEK
WHANGING ON CAR - KNOCK PARTS
LOOSE/ HEALTH LEECH/
SHIELD LEECH/ WEAPON/POWER
UP STEAL
POWERFUL BOMB THAT YOU MUST
SHOOT BEFORE IT EXPLODES
ATOM BOMB FORCE FIELD
(CHARGES UP THEN HURTS
ALL NEARBY)

The topics didn't really relate exactly to each other; sure, they are all things you may find a combat/driving game to have.

The ideas don't have to be original at this stage either; you are merely cataloging ideas and concepts.

As you design them further, then you can start thinking of things like originality or even fun.

CATCHY SLOGAN GOES HERE



Game play feature
#1 described here

Game play feature
#2 described here

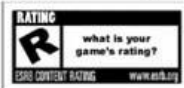


Game play feature
#3 described here

Legal information fills up this space

Development
team logo

Publisher
logo



what game
system
is it for?



An excellent exercise you can use to brainstorm your game idea is to create the box and the manual

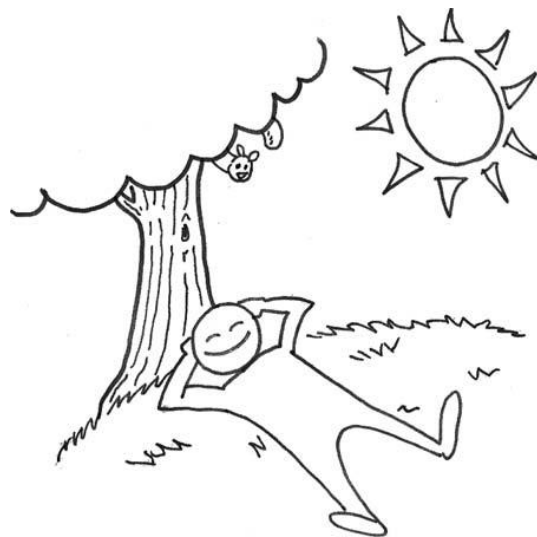
What would the cover image be?

What would the bullet points on the back of the box read?

How would you communicate the game in a black and white, 16 - page manual?

What do you do when the ideas won't come?

- ▶ Narrow your focus
 - ▶ You are thinking too many things. Tackle your problems one by one by making an outline or breaking things down to a minute level
- ▶ Take a walk or exercise
 - ▶ get outside and move around.
- ▶ Deal with something else that may be distracting you
 - ▶ Sometimes when I am stuck it is because I am worrying about something else. Jump ahead to the good stuff
- ▶ Change your environment
 - ▶ Changing environment may help you

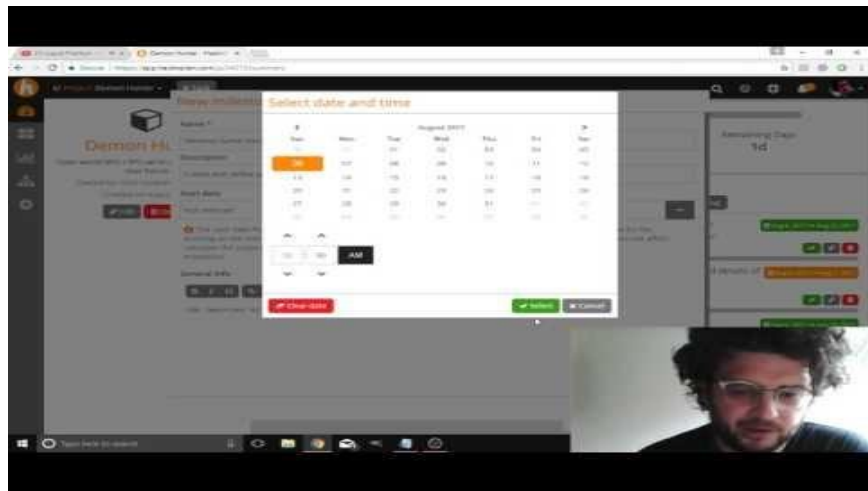


Teams

- ▶ Once you found your team, please send me an email (mksung89@gmail.com)
 - ▶ student names
 - ▶ student ID
- ▶ Best number of team members is 4-5. However, if there is no any choice, then I will allow 3-6.
 - ▶ Not 7
 - ▶ Not 2

Online Game Development Management System : *Hack and Plan*

- ▶ Similar to *Trello*, but more suit for **game development**
- ▶ Free! (but small storage). If you upgrade it, you can get more storage
 - ▶ <https://hacknplan.com/>



I highly recommend this system!

You can use French, if you want

Searching for team members

- ▶ Let's use a recruiting bulletin board on padlet
 - ▶ If you have some idea and want to recruit members, please post it

<https://padlet.com/mksung89/hire>

Questions?

- ▶ From now on, I will give you time to discuss with your classmates to make a team.