# Project – 2D Platformer Game

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| Plan, produce and evaluate a 2D Platformer prototype game, that has gravitational, frictional and / or other pseudo-force physics. |

## Overview of Idea (A&A2 – communication)

**Note: The A&A2 communication criteria is measured throughout both product and written component.**

Restate the purpose of this project and start with an overarching statement of how you intend to respond to this, such as “The following project will detail the design, development and evaluation of… ”. Include your rationale (i.e., your justification for completing this task – **not just because it is a school assignment** – come up with a more 'sellable' real-world reason), and a brief paragraph explaining your idea. Outline the game theme, main protagonist / story / inhibitors to progress, and a brief glimpse of the physics encountered.

## Software and Hardware Requirements (K&U1)

Identify and explain software and hardware requirements. Justify your decisions and recommendations, giving thought to both development and deployment:

**Hardware**

* Keyboard – mechanical, laptop and / or standard layout?
* Mouse – pointing device vs. trackpad?
* Internet connection (for deployment / distribution)? Hard drive space?
* GPU / graphics requirements? Screen resolution?

**Software**

* Software for you as the designer, e.g. Piskel App (<https://www.piskelapp.com/>), Game Maker Studio 2, etc. Also, Word etc. to create documentation of the game.
* Software for an end user to play the game e.g., Windows OS, the actual game files (executable or web browser)

Use of Proposed Solution in Society (K&U2)

Identify and explain how your proposed solution:

* compares to games currently on the market, yet presents a unique, creative solution.
* Meets the target audience analysis of demographics and attitudes you discover.
* Contains elements of that are going to entice and maintain your player base, as well as the task requirements. What are its **unique selling points**? How is this of **justifiable value**?
* What is the anticipated classification / rating? How else can you **accurately** identify and **comprehensively** explain the *use* of ICT / this project within society?

Analysis of Problem (A&A1)

What do you propose to include in your game? Draw a **mind-map** to illustrate your brainstorming of ideas. At this stage **do not worry** if you do not have the skills or knowledge to create these ideas yet. List what you would **like** to do, regardless of your technical skill (i.e., dream big):

**Product analysis:**

* Protagonists and antagonists – NPC’s vs user controlled, AI mechanics?
* Items, collectibles, inventory, scoring or character progression mechanics
* Map or room mechanics, elements or ideas – spawn waves, pseudo-physical mechanics?
* Game controls, animations, graphic themes, levels or gradual delivery of challenges
* Longevity “hooks”, story and goal states, milestones, replay-ability value?
* Physics – gravitational, frictional and / or other pseudo-force physics (such as pendulum physics, inverse gravity, maintain velocity through teleports, etc.)
* Other – e.g., historical elements / accuracy, soundtrack, research, meaning or message?

**Process analysis:**

* end user requirements –
	+ What are the needs of your target audience?
		- Accessibility
		- Cultural etc.
	+ How does your game address these needs?
	+ Might there be legal, moral, or cultural objections to your game content?
	+ Are there any other user groups that could benefit or have an interest (good or bad) in your project?
* can you think of any potential risks or predicted issues / problems with developing, deploying, or maintaining this project?
* are there any other project requirements that must be met or are worth considering?

### Synthesising a Plan – Annotated Design Illustrations (P&E1)

By hand or draw and scan – make sure these are annotated – illustrate and explain how your game world is going to work (visually) across multiple storyboards, and **annotate physics mechanisms in particular** – for example:



### Production of Solution (P&E2)

Build your solution and screen record yourself describing both a demonstration of the working solution and all source components.

**There is a criteria for applying software and hardware concepts, ideas and skills to complete all set tasks listed (A&A3)**.

### Evaluation and Future Recommendations (P&E3)

* A critical reflection of the solution:
	+ Do you have some quantitative or anecdotal test data on how your solution worked, that can justify your claims?
	+ Are there any errors or shortcomings, and what is the consequence of these?
	+ Can you suggest future directions for short- and long-term improvement of your product?
	+ Justify your conclusions made with supporting evidence (i.e., use examples or snippets from your **platformer game** to support your arguments here).
* A critical evaluation of the process you took in developing this proposal:
	+ What worked well? What was difficult? How could you have approached your issues differently? How did you resolve issues faced?
	+ Where to from here?
	+ Justify your conclusions made with supporting evidence (i.e., use examples or snippets from your **proposal** to support your arguments here).
* Overall, based on the actions and consequences identified in this evaluation, do you believe this product or project was successful? Why or why not? Explain, with reasoned evidence. Where this is doubt in judgement, what further evidence would you need to help minimize this doubt.

**Use screen shots or evidence from your project where possible to help illustrate your judgements**.