Group C2.3

Mouse-ify

"Solution for people with difficulties to learn how to use a mouse. A need exists to design and program a versatile, attention-grabbing, mouse training game to teach people of all backgrounds computer knowledge, including those with mental and physical disabilities. These skills learned from the mouse game are to be later applied to their everyday tasks and internet activities using personalizable mouse training web applications."

Problem Statement

Customer Needs

1. Teach fundamental mouse skills : left click, right click, double-clicking, scrolling, dragging, text selection

2. Not childish: Age appropriate

3. Designed for people who have little to no mouse skills

4. Simple content and easy to understand

5. Accomdate visually in writing size and color

More Needs Identified :

Can retain the user's attention span for a long duration
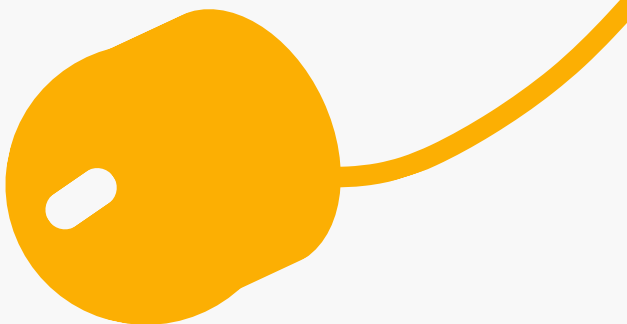Different levels of difficulties
Accommodate with Audio
Software to install
Accommodate for different attention spans

6. Has a visual demonstration of instructions

## 7. Help users gain more independence with their mouse skills

Target Specifications

| Needs	Metric / criteria	Specification	unit
Teach fundamental mouse skills (left click, right click, scroll, dragging, text selections and combination of movements)	Multiple functions	Yes	Binary (Yes/No)
Not childish : Age appropriate	Age appropriate	Yes	Binary (Yes/No)
	Age range	20-70	Years
Can retain user's attention span for a long duration	retention rate		time
Has a visual demonstration of instructions	Visual Demonstration	Yes	Binary (Yes/No)
	Caption for videos	Yes	Binary (Yes/No)
Designed for people who have little to no mouse skills	For beginners	Yes	Binary (Yes/No)
Different levels of difficulties	Levels	>= 6	Levels
Accommodate with Audio	Audio	Yes/No	Binary (Yes/No)

Needs	Metric / criteria	Specification	unit
A software to install	software	No	Binary (Yes/No)
Accommodate visually the users writing size(font)	font size	30	pts
	Sentence length	< 75	characters
Simple content and easy to understand	Customer survey	1-5	scale
	Task Success Rate (number of attempts / total number of attempts)(shows the percentage of participants that successfully complete)	1-10	percent
Accommodate visually the users in term of color, and contrast	colors contrast (WebAIM's color contrast checker)	4:5:1 normal text	ratio
	brightness		levels
Help users gain more independence with their mouse skills	mouse sensitivity	800 +/- (500)	DPI
Accommodate for different attention spans	Maximum duration	15 - 30 mins	Minutes (mins)

Solution Options

Top 3 concepts
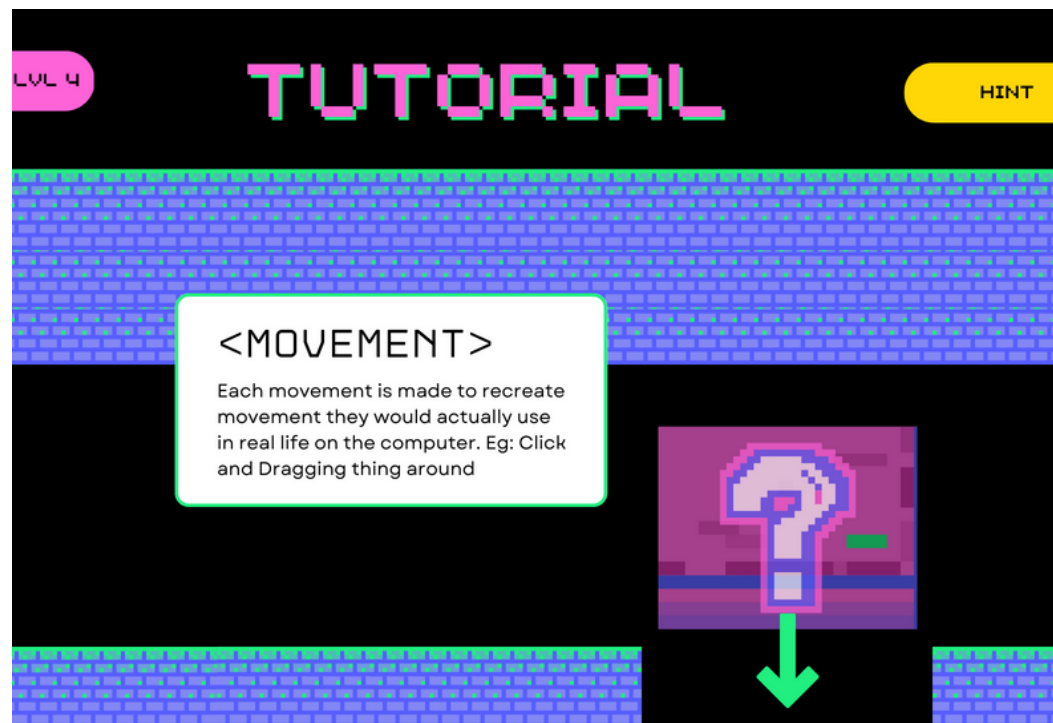
Tunnel game
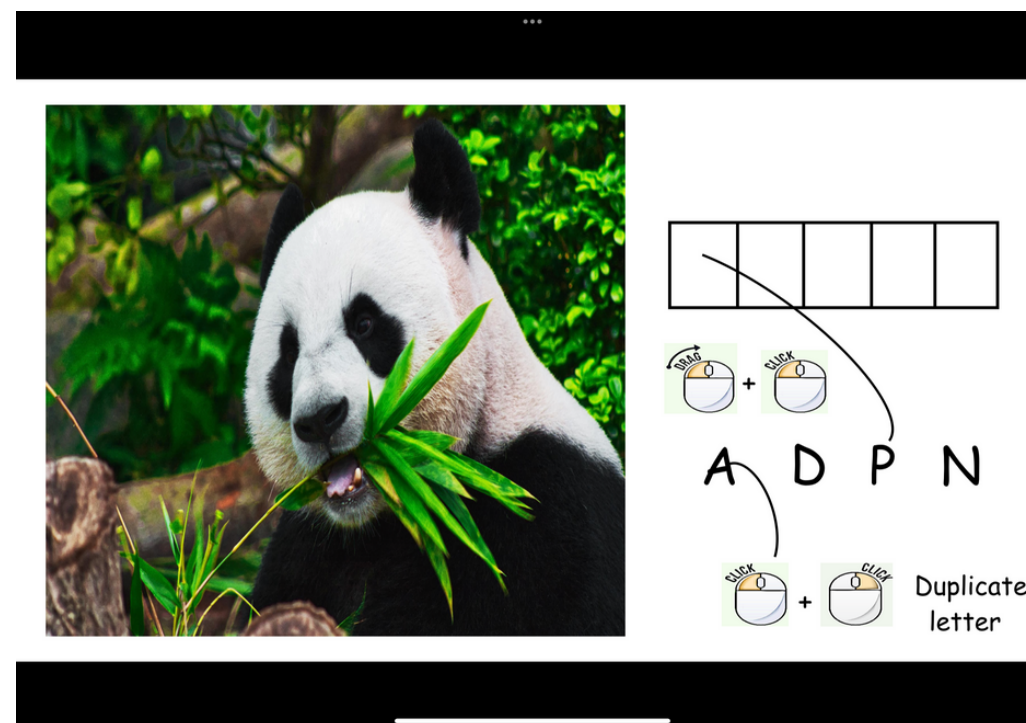
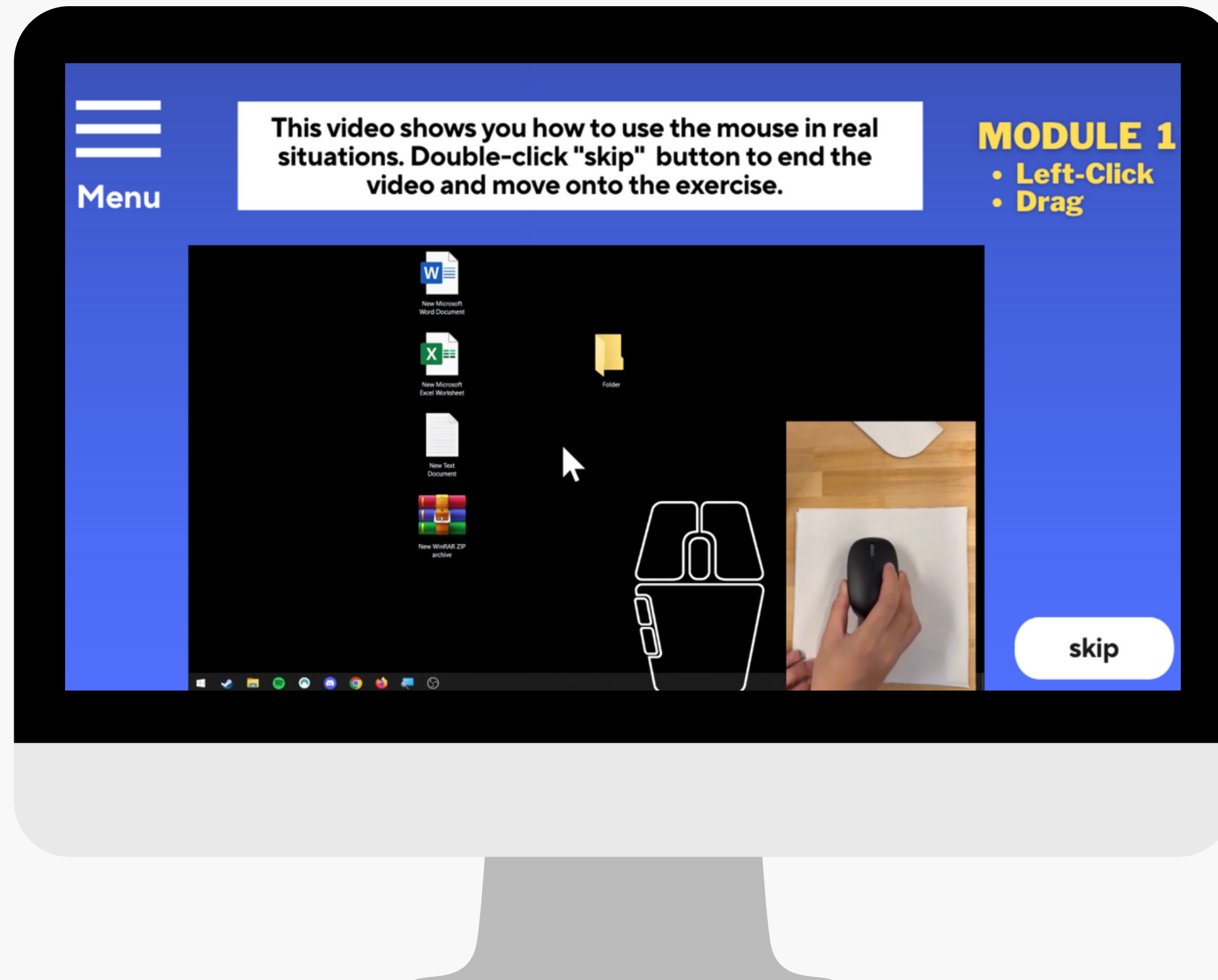**Puzzle-based Game**

Minecart Escape Game

"Puzzle-Based Mouse Learning Game with Adjustable Settings to Improve Functionality & Keep User Engaged while Familiarizing with Basic Mouse Skills"

PUZZLE

Final Concept

Game-Based Concept that teaches Basic Mouse Functions Through Engaging Puzzle Solving and Word Formation

Menu

This video shows you how to use the mouse in real situations. Double-click "skip" button to end the video and move onto the exercise.

MODULE 1
- **Left-Click**
- **Drag**

skip

01 Module + Exercices for each level.

02 Functionality applied through "Puzzle Solving and Word Formation".

03 Customizable Settings for a Comfortable Learning Experience.

04 Keeps User *Engaged* while Familiarizing with Basic Mouse Skills.

05 Progressive puzzle-solving levels with increasing difficulty.

06 Automatic transition to the lesson after 8 sec if user cannot use the mouse at all.

SubSections
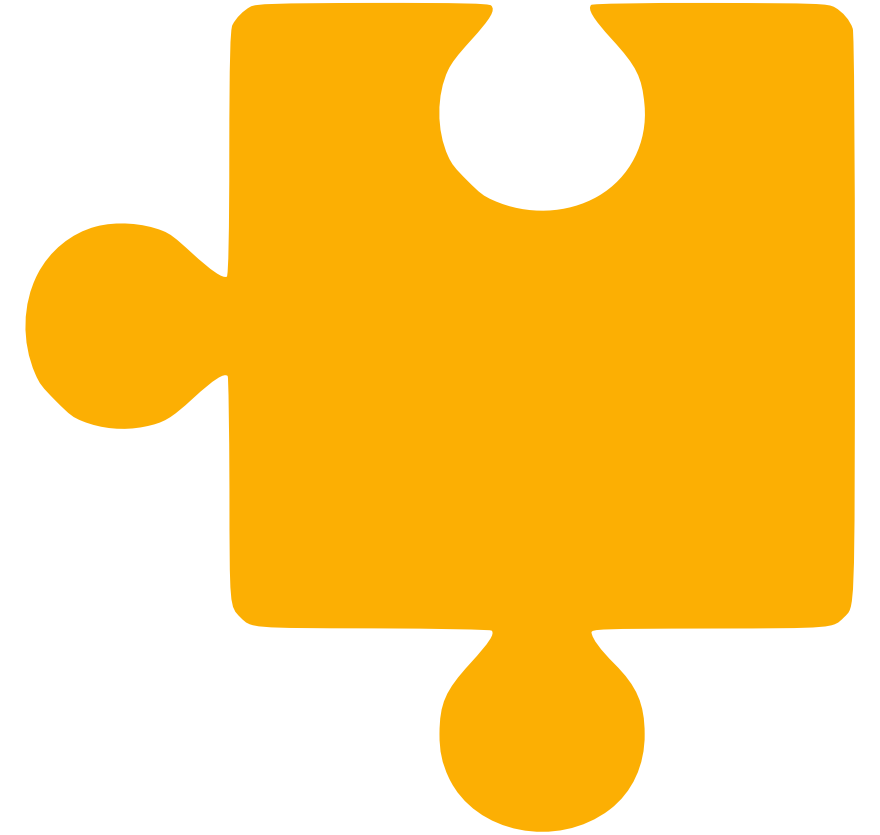
Modules

- Includes video [filmed ourselves] + caption + skip options + exercices

Puzzle

- *4 Levels total*
  Level 1 & 2 have 8 pieces
  Level 3 has 12 pieces
  Level 4 has 20 pieces

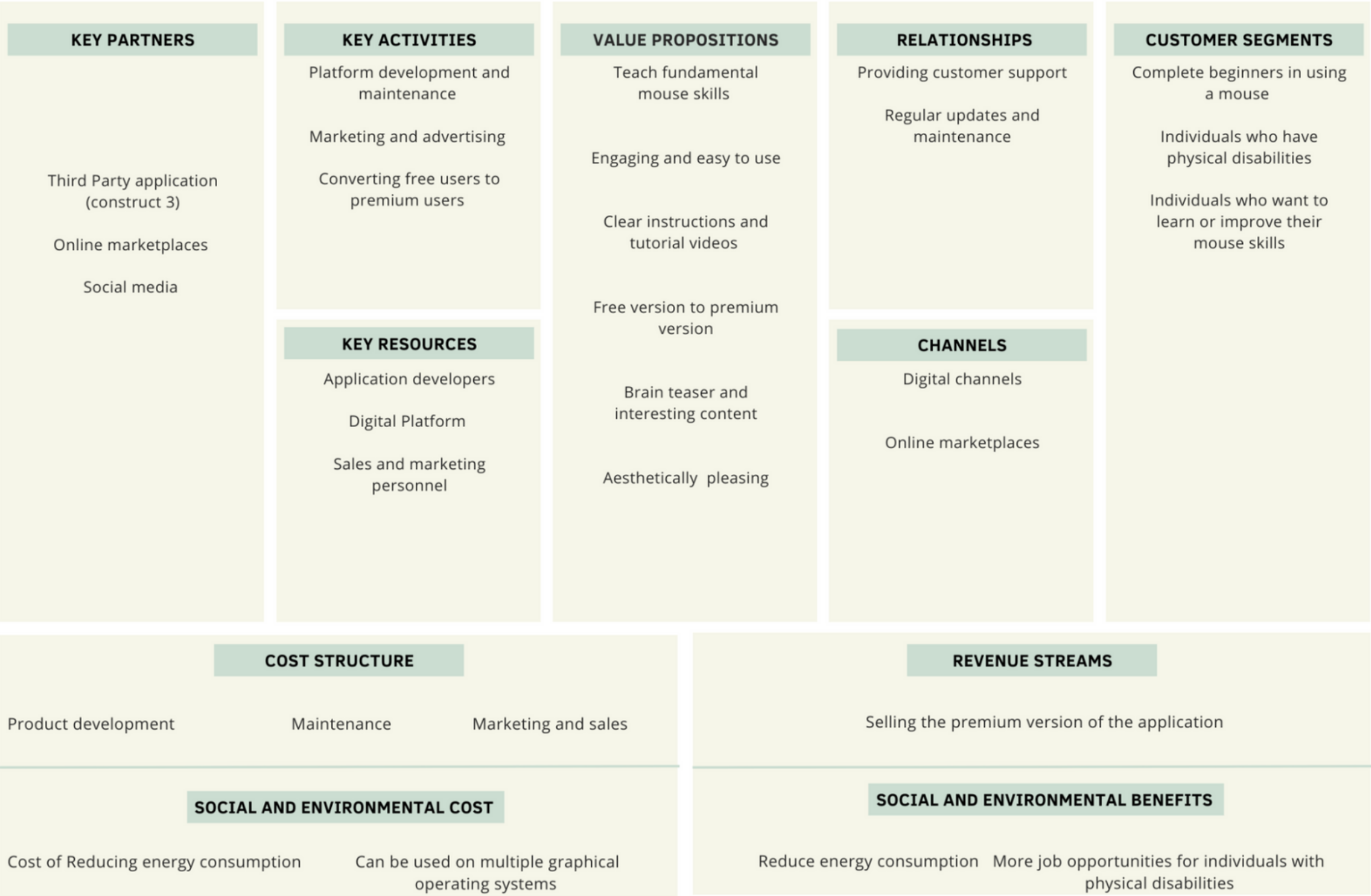- Functions include **drag + drop** puzzle pieces and letter to their appropriate places

Word

- The last level of this section of the game also has a simulation of the copy-paste function.

Business Model and Economics

Freemium Model

01 Well suited to commercialize our product because our application is a mouse skills application. We think it's better to let the user try a free version first, for instance the first level only, before paying to access more advanced levels. Buying our product after trying out the free version is more ethical considering our product which is why we decided to go with the freemium business model.

02 We might not be adding new content in the future so a traditional subscription wouldn't be ideal. On the other hand, selling our products directly to customers might affect our sales negatively as the customers might be hesitant to buy a product they are not sure will meet their needs, which can be very risky for us as a business.

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Business & Model and Economics

Assumption

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSITIONS	RELATIONSHIPS	CUSTOMER SEGMENTS
Third Party application (construct 3) Online marketplaces Social media	Platform development and maintenance Marketing and advertising Converting free users to premium users	Teach fundamental mouse skills Engaging and easy to use Clear instructions and tutorial videos Free version to premium version Brain teaser and interesting content Aesthetically pleasing	Providing customer support Regular updates and maintenance	Complete beginners in using a mouse Individuals who have physical disabilities Individuals who want to learn or improve their mouse skills

KEY RESOURCES

Application developers

Digital Platform

Sales and marketing personnel

CHANNELS

Digital channels

Online marketplaces

COST STRUCTURE

Product development   Maintenance   Marketing and sales

REVENUE STREAMS

Selling the premium version of the application

SOCIAL AND ENVIRONMENTAL COST

Cost of Reducing energy consumption   Can be used on multiple graphical operating systems

SOCIAL AND ENVIRONMENTAL BENEFITS

Reduce energy consumption   More job opportunities for individuals with physical disabilities

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Trials and Tribulations

Technical Challenges

- Game logic and design: Using Construct 3 must ensure that the game's logic and design are well-constructed and aligned with the game's intended purpose.

- Bug and glitch fixing: Take care to identify and resolve any bugs or glitches that affect the game's functionality, ensuring that the game runs smoothly and delivers an optimal user experience.

- Testing and quality assurance: Perform rigorous testing and quality assurance checks to identify any issues and ensure that the game meets users' expectations.

- User feedback: Didn't have access to the users so it was harder to test

Other challenges

Time Management:

Delays in the development process can be caused by technical issues. They also impacted our timeline and created delays.

"Test early and often: Testing early in the development process can help catch bugs and glitches before they become major issues. Continuously testing throughout"

Lesson #1

Mouse-ify: What's Next?

- Explore additional features and functionality to enhance the user experience
- Add new level and features
- Incorporate user feedback into future updates and releases
- Plan for scalability and future growth, including potential partnerships and collaborations
- Continuously test and optimize the app to improve performance and functionality
- Explore emerging technologies and trends to stay ahead of the competition and remain relevant in a rapidly evolving market.