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III JIDTI

A XXVII **Jornada de Iniciação Científica** e III **Jornada de Iniciação em Desenvolvimento Tecnológico e Inovação** do CETEM

CETEM
CENTRO DE TECNOLOGIA MINERAL

MINISTÉRIO DA CIÊNCIA, TECNOLOGIA, INOVAÇÕES E COMUNICAÇÕES

PÁTRIA AMADA BRASIL
GOVERNO FEDERAL

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The "ReQuiz" Quiz Game

on Waste Electrical and Electronic Equipment

by Matheus Avellar

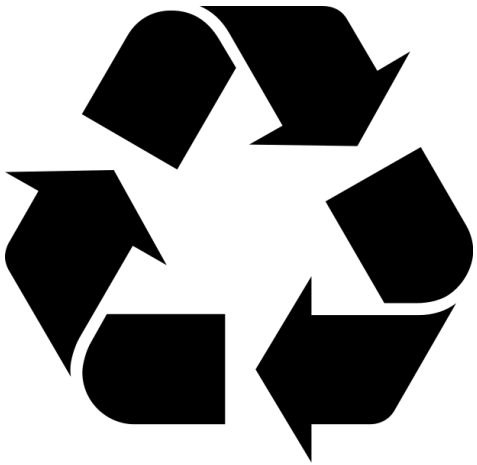
advisor Lúcia Xavier

(this presentation is available at http://t.im/requiz)

INTRODUCTION

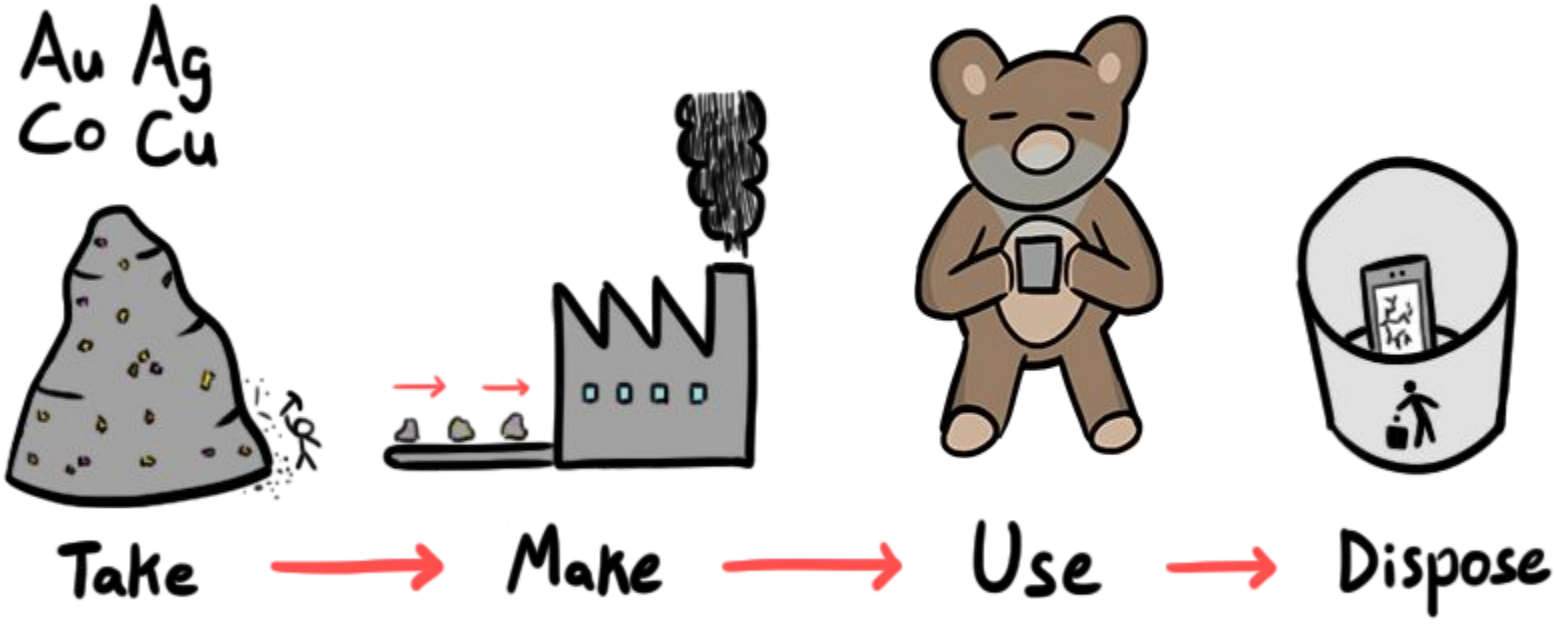
→ We at the R3MINARE team have been studying the importance of **recycling e-waste** (a.k.a. Waste Electrical and Electronic Equipment, WEEE for short)

→ That ties in with the concept of a **circular economy**



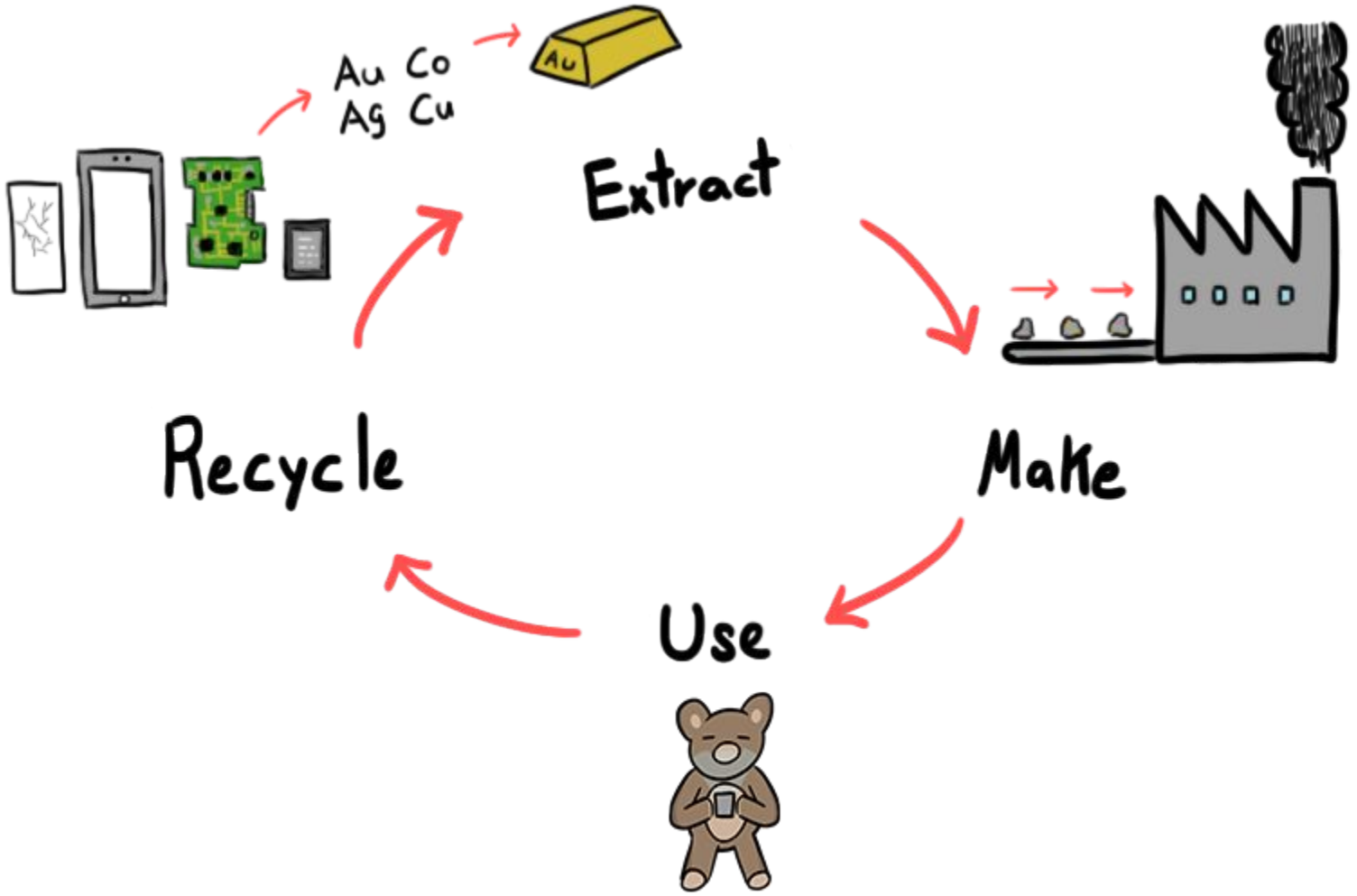
INTRODUCTION:

Linear Economy (simplified)



INTRODUCTION:

Circular Economy (simplified)



INTRODUCTION

→ We wanted to quantify **how much** people **actually know** about WEEE recycling and the concept of circular economy

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→ Answering forms is boring

INTRODUCTION

→ We wanted to quantify **how much** people **actually know** about WEEE recycling and the concept of circular economy

→ Answering forms is boring

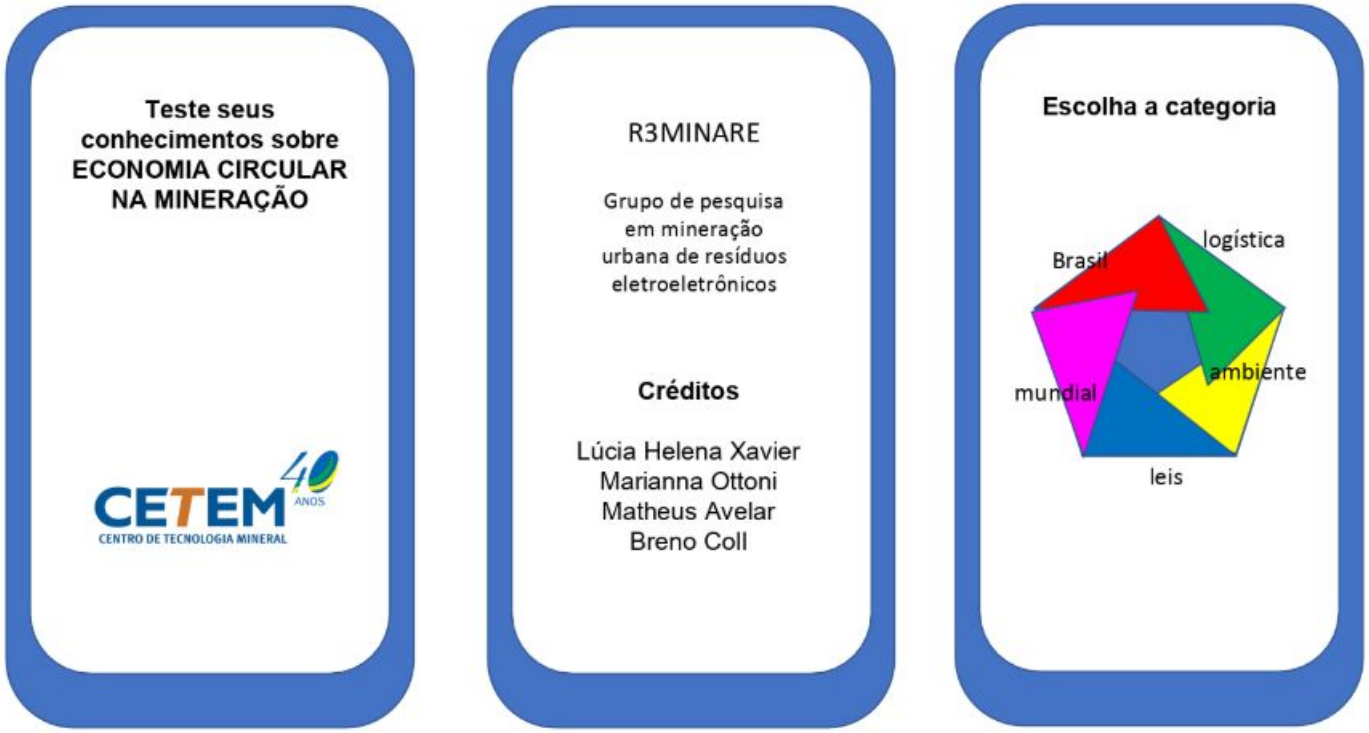
→ What do people *like* to do?

INTRODUCTION

People like to play G A M E S !

OBJECTIVES

→ Idea: making a **game** about recycling WEEE

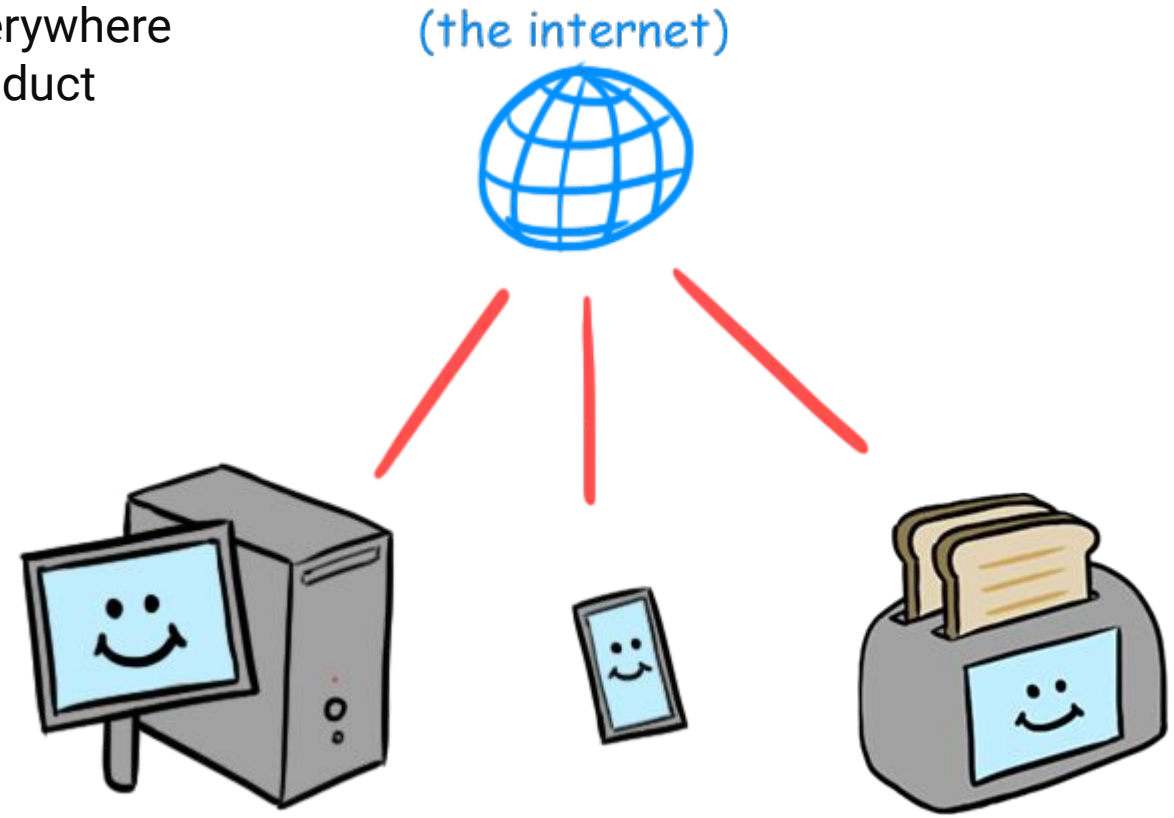


MATERIAL & METHODS

MATERIAL & METHODS

We should build it as a website!

→ Accessible from everywhere
→ Develop a single product



MATERIAL & METHODS

Plan A: HTML / CSS / Javascript

MATERIAL & METHODS

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Plan A: HTML / CSS / Javascript

huh?

MATERIAL & METHODS:
What is HTML?

→ HTML defines the **structure** of a page

```
<h1> This is a title! </h1>
<p> This is a paragraph! </p>
<strong> This is BOLD! </strong>
<button> This is a button! </button>
```

MATERIAL & METHODS:
What is HTML?

→ HTML defines the **structure** of a page

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but that looks kinda ugly!

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MATERIAL & METHODS:
What is CSS?

→ CSS defines the **style** of a page

```
h1 {
  color: red;
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MATERIAL & METHODS:

What is JS?

→ Javascript defines the **interactivity** of a page

```
button.onclick = () ⇒ {
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MATERIAL & METHODS:

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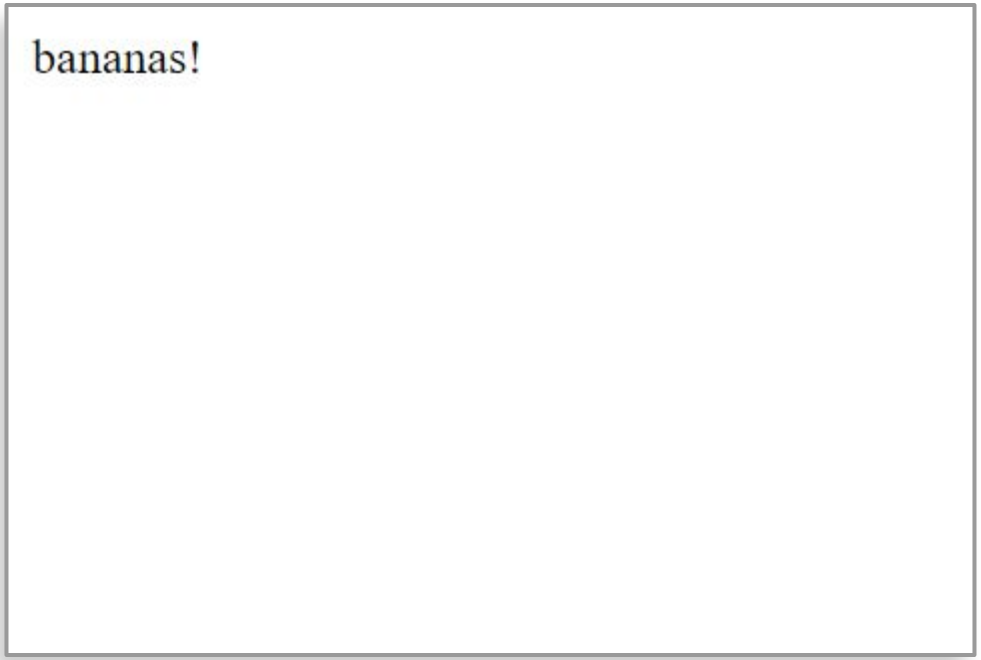

MATERIAL & METHODS

Plan A: HTML / CSS / Javascript

Pros: Those are things I can do! :)

MATERIAL & METHODS

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MATERIAL & METHODS

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h1 {
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```
<h1> Fun section! </h1>
<p>…</p>
<h1> Serious section. </h1>
<p>…</p>
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MATERIAL & METHODS

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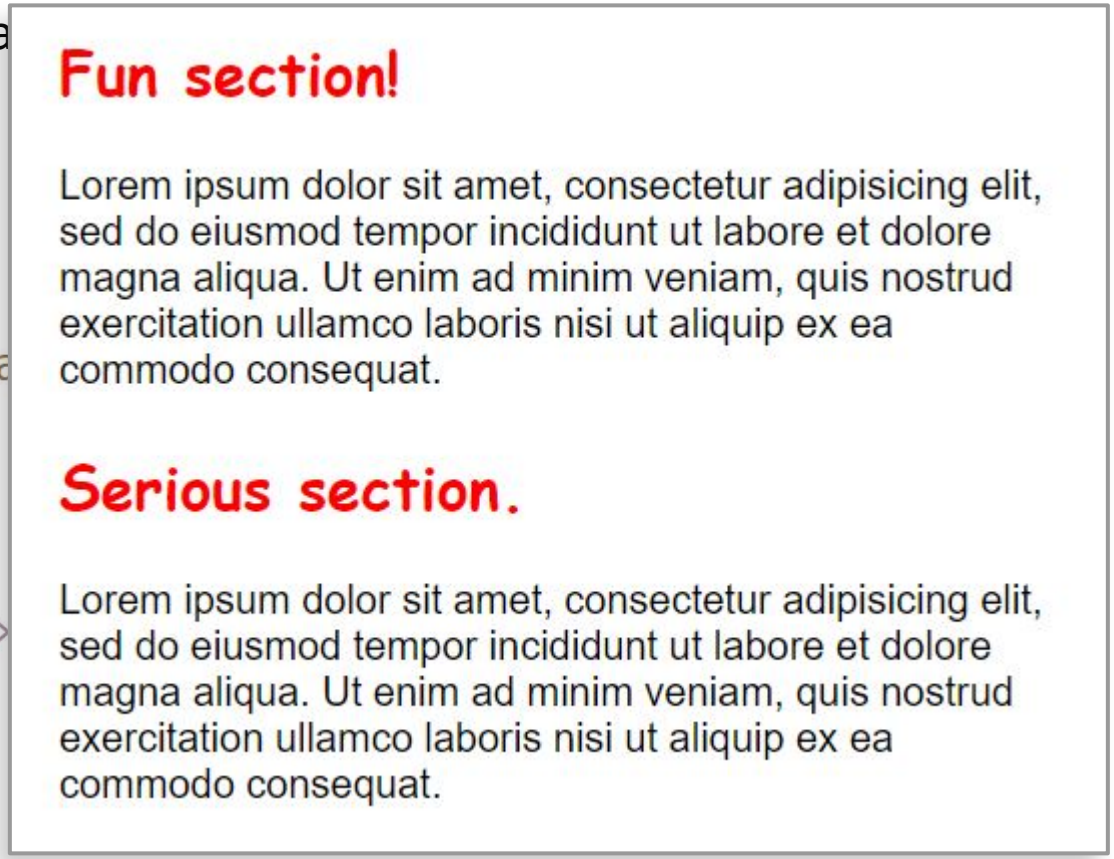

MATERIAL & METHODS

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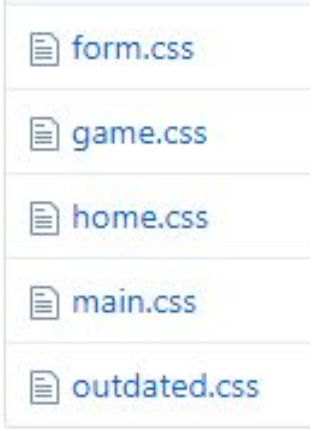

MATERIAL & METHODS

Plan A: HTML / CSS / Javascript

Pros: Those are things I can do! :)
Cons: It scales poorly :(

- form.css
- game.css
- home.css
- main.css
- outdated.css

Name	Status	Type	Initiator	Size	Time
form	200	document	Other	2.1 KB	146 ms
main.css	200	stylesheet	form	923 B	147 ms
form.css	200	stylesheet	form	848 B	141 ms
css?family=Roboto:400,500	200	stylesheet	form	(disk cache)	3 ms
outdated.css	200	stylesheet	form	342 B	147 ms
KFOlCnqEu92Fr1MmEU9fBBc4.woff2	200	font	form	(disk cache)	1 ms

MATERIAL & METHODS

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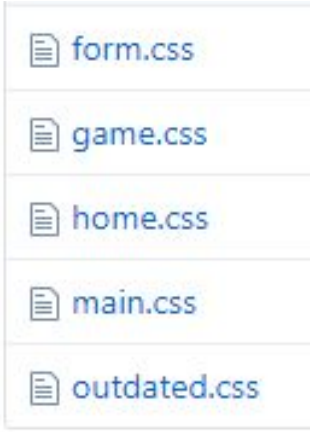

It's better to use a **single** file, than it is multiple files!

Name	Status	Type	Initiator	Size	Time
form	200	document	Other	2.1 KB	146 ms
main.css	200	stylesheet	form	923 B	147 ms
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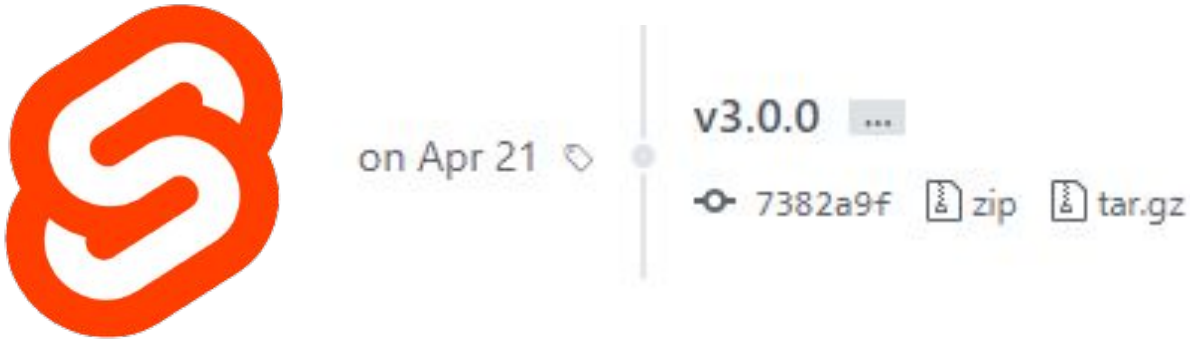
MATERIAL & METHODS

Plan B: "Svelte"

MATERIAL & METHODS

Plan B: Svelte



Jesse Skinner @JesseSkinner · Jun 29

I fell in love with @sveltejs today.

Svelte is the most beautiful web framework I've ever seen

I tried out Svelte for the first time and it blew me away

dev.to

7 44 205

svelte

/svelt,sfelt/

adjective

(of a person) slender and elegant.
"she was svelte and sophisticated"

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svelte

Google Search I'm Feeling Lucky

Google svelte

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woman body male lily aldridge person waist figu

Svelte Leggings | Black W...
lucashugh.com

Discounts, Coupons & Deals on Hotels ...
wagjag.com

Svelte Poses for Elijah 7 an...
daz3d.com

Pair of Cargo Leggings from Svelte ...
wagjag.com

The Svelte System: how our s...
shopsvelte.com

Svelte | Crossback Bralette — A...
artemis-diciero.com

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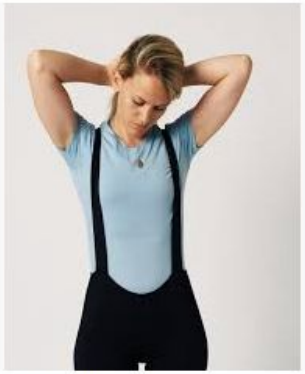

Matt Ben Stone - Svelte
mattbenstone.com

Svelte stock photo. Image of...

Svelte Cycles launches Lon...

Svelte • Cybernetically enhanced we...

svelte: Cybernetically enhanced web ...

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woman body male lily aldridge person waist figu

Svelte Leggings | Bla
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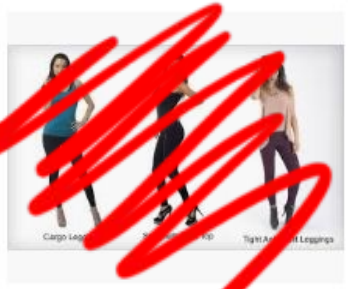

Pair of Cargo Leggings from Svelte ...
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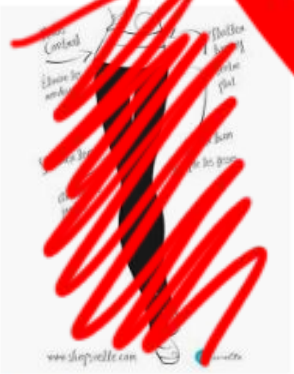

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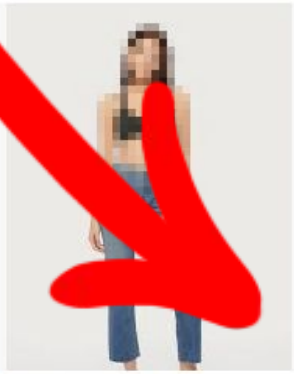

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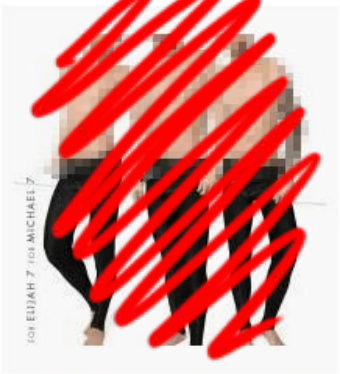

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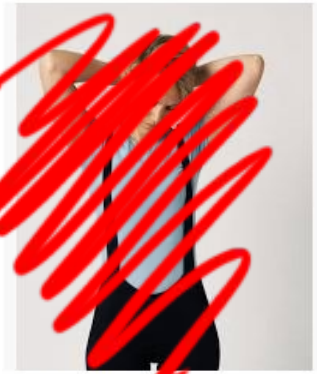

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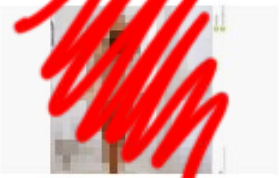

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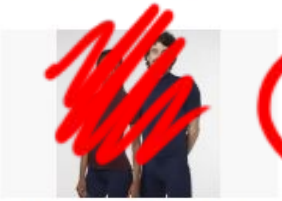

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svelte: Cybernetically enhanced web ...

MATERIAL & METHODS

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Plan B: Svelte

Pros: Scalability, modularity! :)

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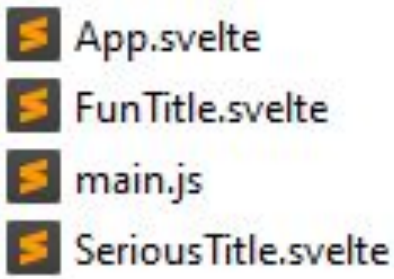


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  <slot>
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MATERIAL & METHODS

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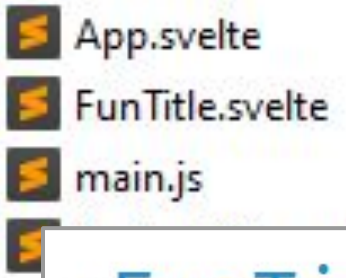


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  This is fun!
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MATERIAL & METHODS

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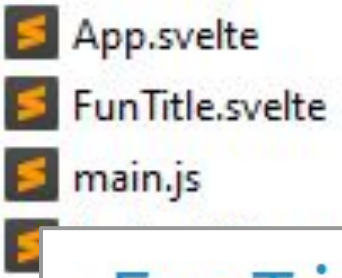


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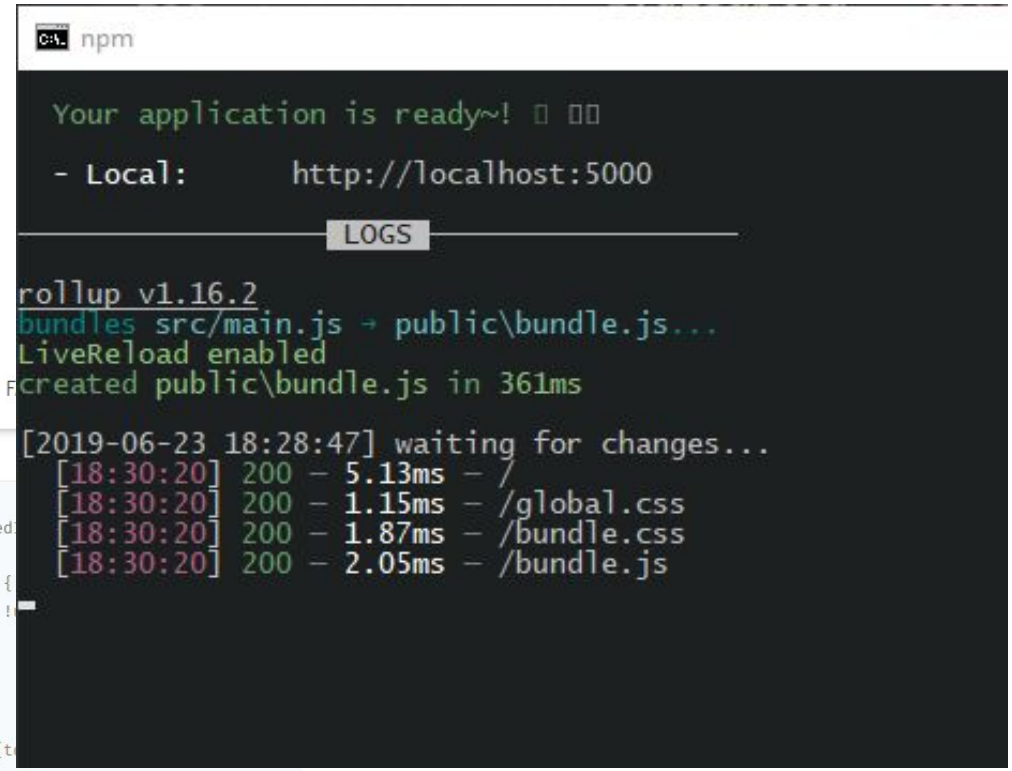

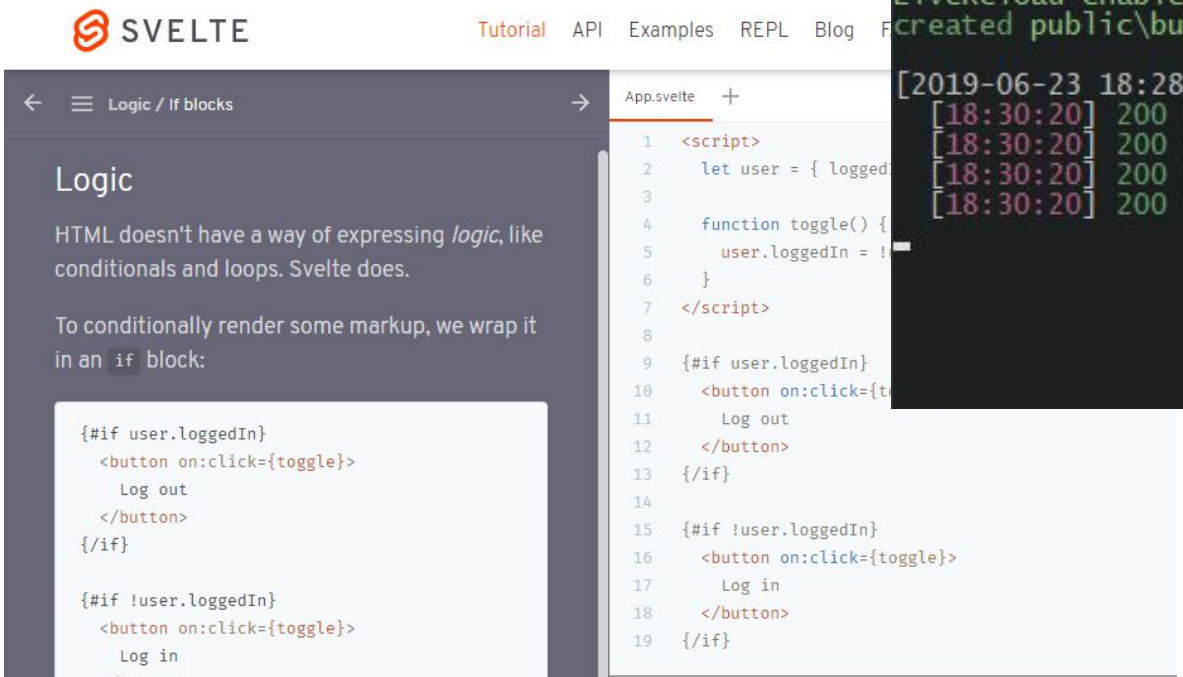

RESULTS & DISCUSSION

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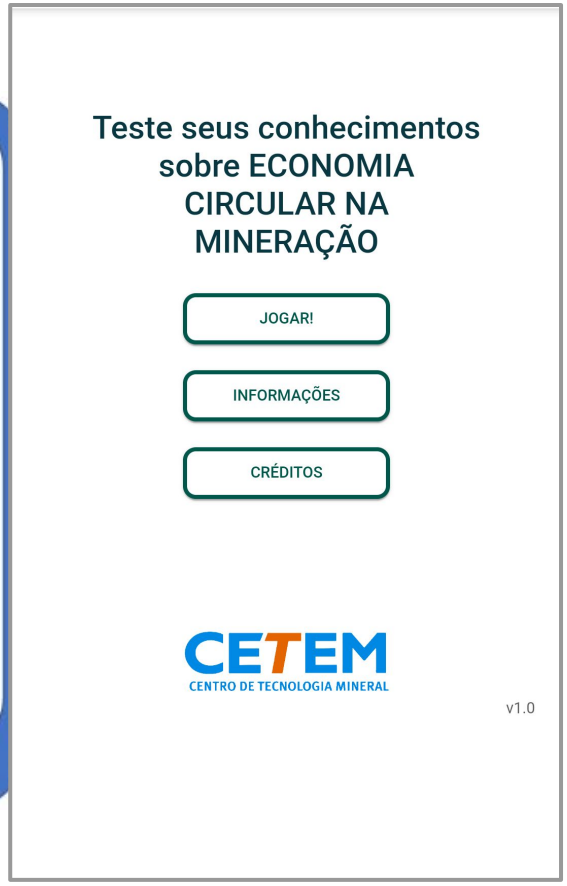
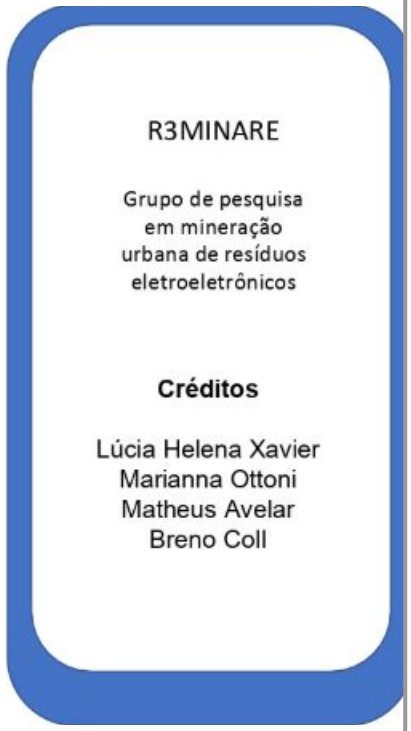
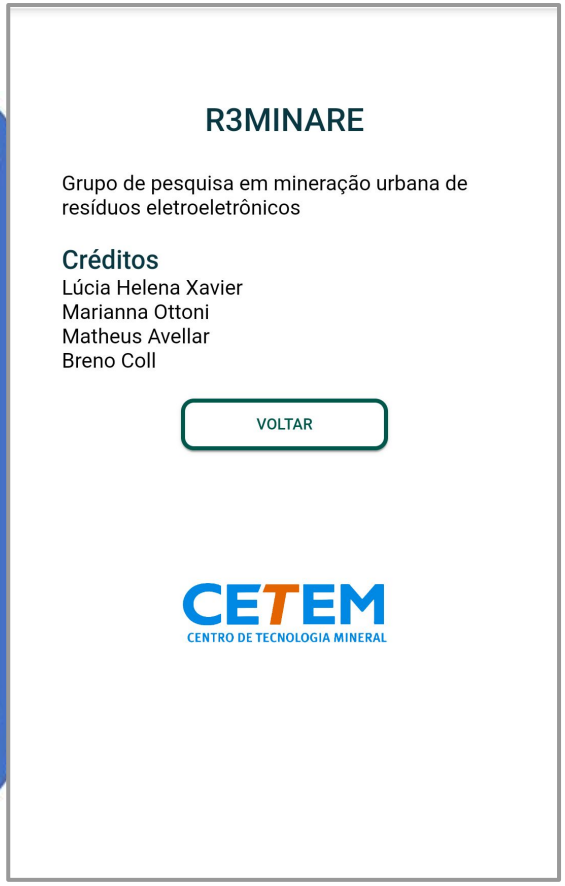
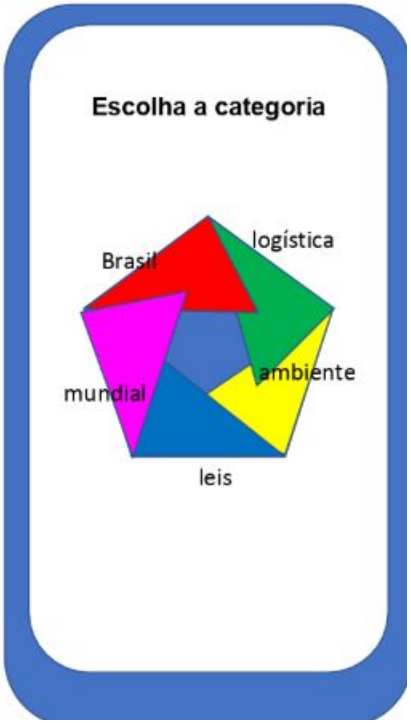






RESULTS & DISCUSSION



Pergunta 4 de 21

Qual país é o maior gerador de e-waste no mundo?

a) Rússia

b) China

c) Estados Unidos

Pergunta 4 de 21

Qual país é o maior gerador de e-waste no mundo?

✘ Rússia

✔ China

✘ Estados Unidos

Correto! Você tem 4 pontos!

PRÓXIMA

Pergunta 5 de 21

Qual o minério é produzido em maior quantidade no Brasil?

✘ Bauxita

✔ Minério de ferro

✘ Manganês

Incorreto! Você tem 4 pontos!

PRÓXIMA

Fim de jogo!

Você terminou com 9 pontos, e respondeu um total de 21 perguntas! Pode melhorar!

CRÉDITOS

VOLTAR

CONCLUSIONS

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→ Don't be afraid to **try something new**! It might make your life easier :)

→ Perhaps **research** a bit **before starting** a potentially big project

THANKS!

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→ To my advisor, Lúcia Xavier, and all other members of the R3MINARE team;

→ To CETEM and CNPq for the opportunity and scholarship received;

→ To you for coming to my presentation!

Matheus Avellar
github.com/matheusavellar
matheusavellar@dcc.ufrj.br

REFERENCES

Krdan [Public domain], via Wikimedia Commons. "Recycling symbol". Available at https://commons.wikimedia.org/wiki/File:Recycling_symbol.svg. Retrieved July 29, 2019.

Subway photo courtesy of "Línea del metro de la CDMX ya cuenta con Internet gratis". Mientras Tanto en México. December 4, 2017. Available at https://www.mientrastantoenmexico.mx/linea-de-metro-de-la-cdmx-ya-cuenta-con-internet-gratis/. Retrieved July 30, 2019.

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