

# **MINEFIELD**

**Um jogo de gemas e bombas**

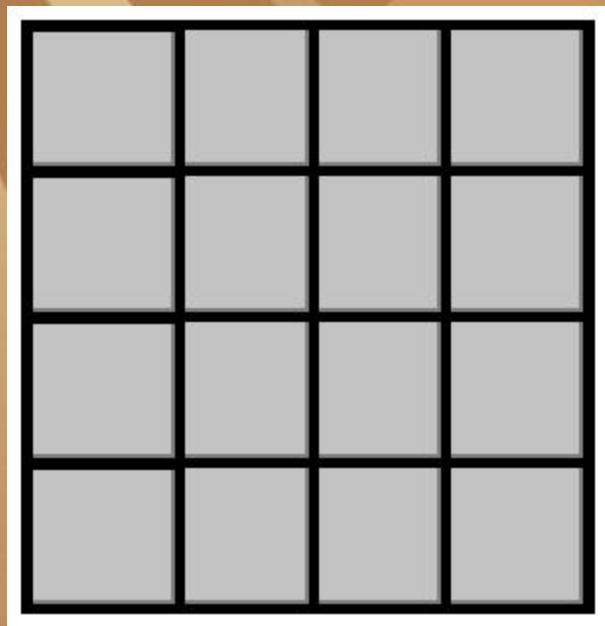


**MC322 - Programação  
Orientada a Objetos**

**Bruna Rodrigues Barbosa RA 194966  
Cauan Newton Alves Souza RA 195620**

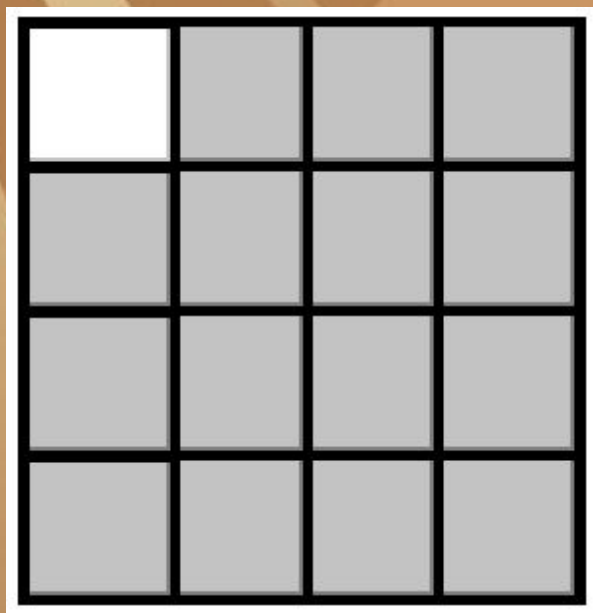


**ESEMPIO**



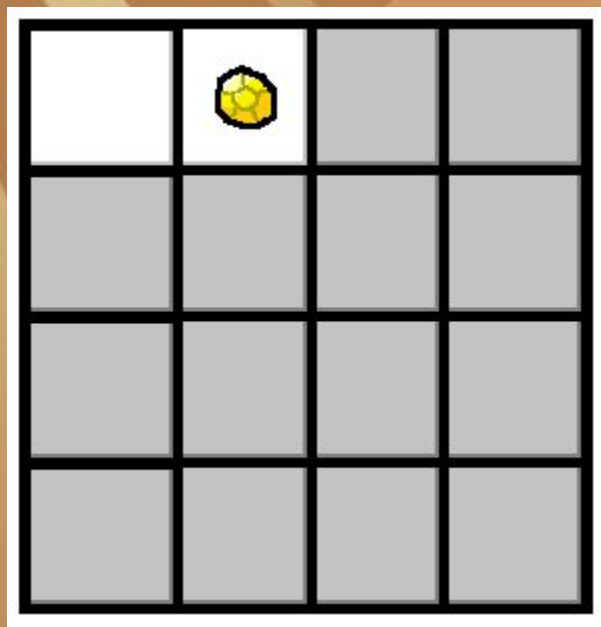
Jogador 1  
🟡 0

Jogador 2  
🟡 0



Jogador 1  
🟡 0

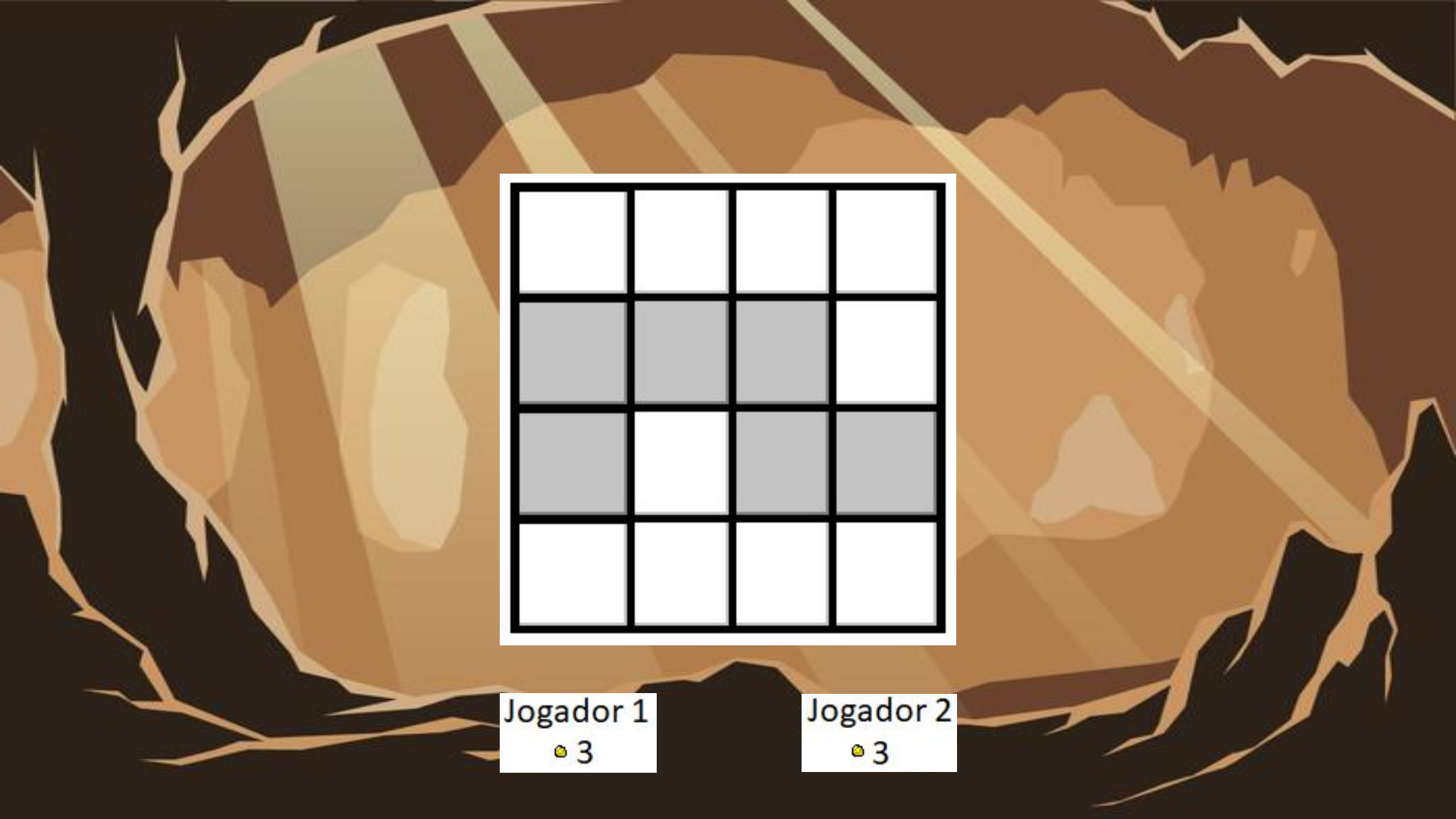
Jogador 2  
🟡 0



Jogador 1  
0

Jogador 2  
1

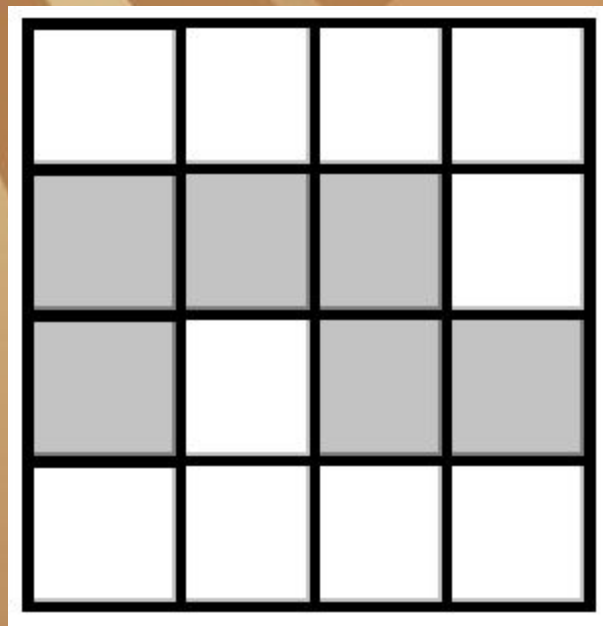




A 4x4 grid game board is centered on a stylized cave background. The grid has a thick black border and is divided into 16 squares. The background features jagged rock formations in shades of brown and tan, with a dark brown floor. A bright light source from the upper right creates a strong diagonal beam of light across the scene.

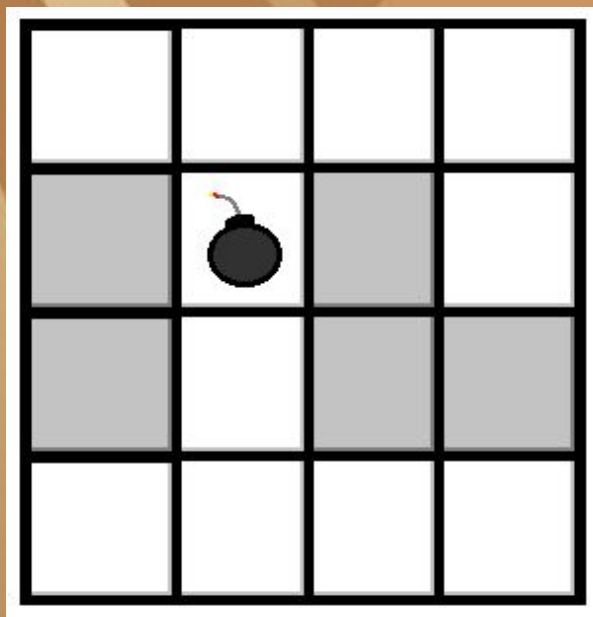

Jogador 1  
3

Jogador 2  
3




Jogador 1  
● 3

Jogador 2  
● 0



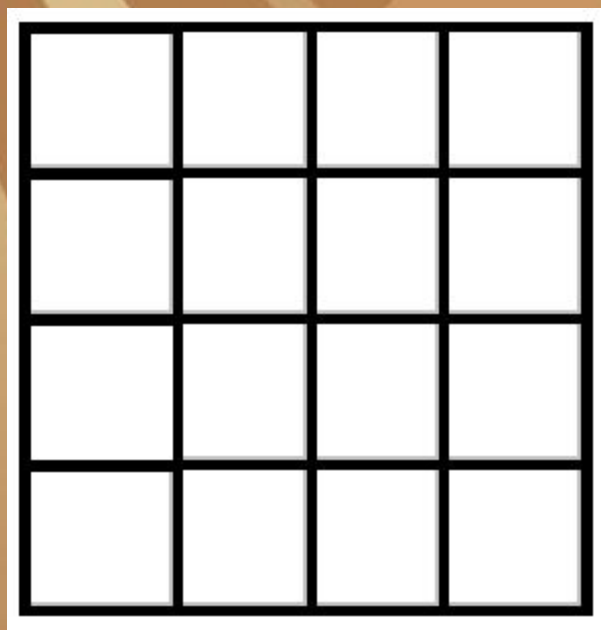
Jogador 1

👤 0

Jogador 2

👤 0





Jogador 1

0

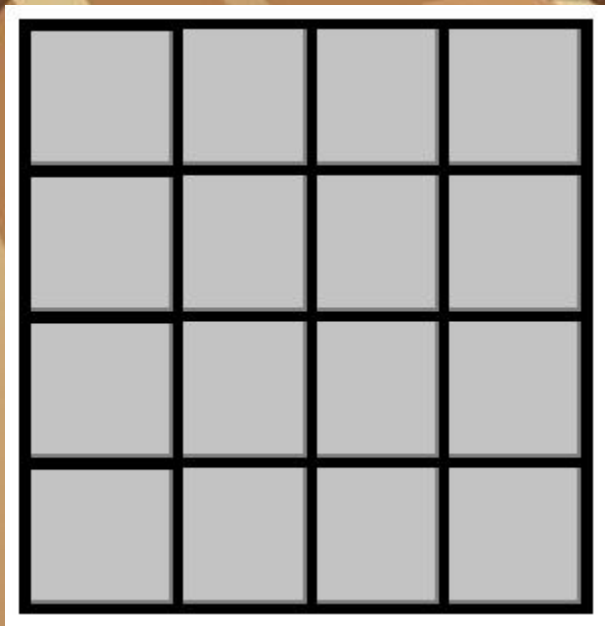
Jogador 2

1



# REGRAS DO JOGO

1

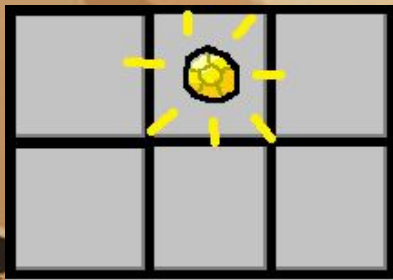
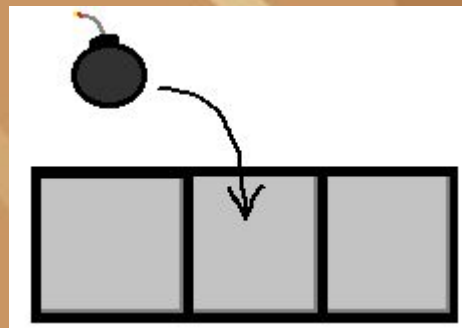
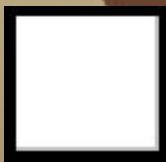




# 2

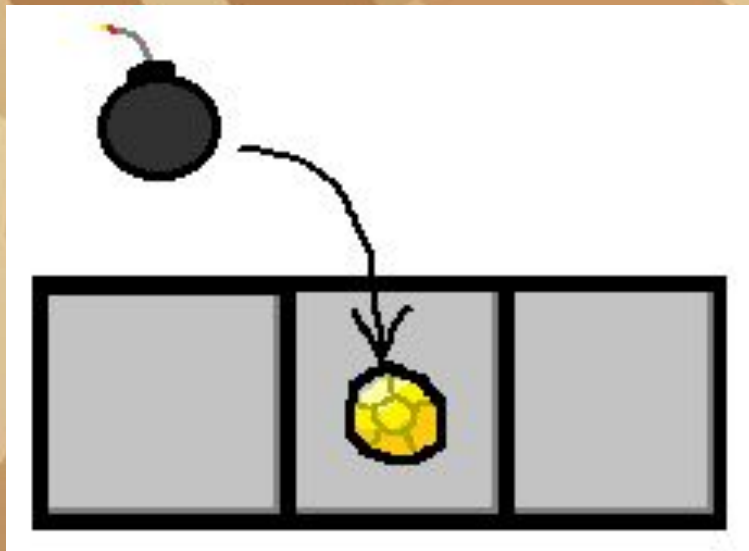
Jogador 1 → Jogador 2 → Jogador 3 → ...

3





4



5



6

Jogador 1

🟡 1

vs

Jogador 2

🟡 3

Jogador 1

🟡  $1/5$

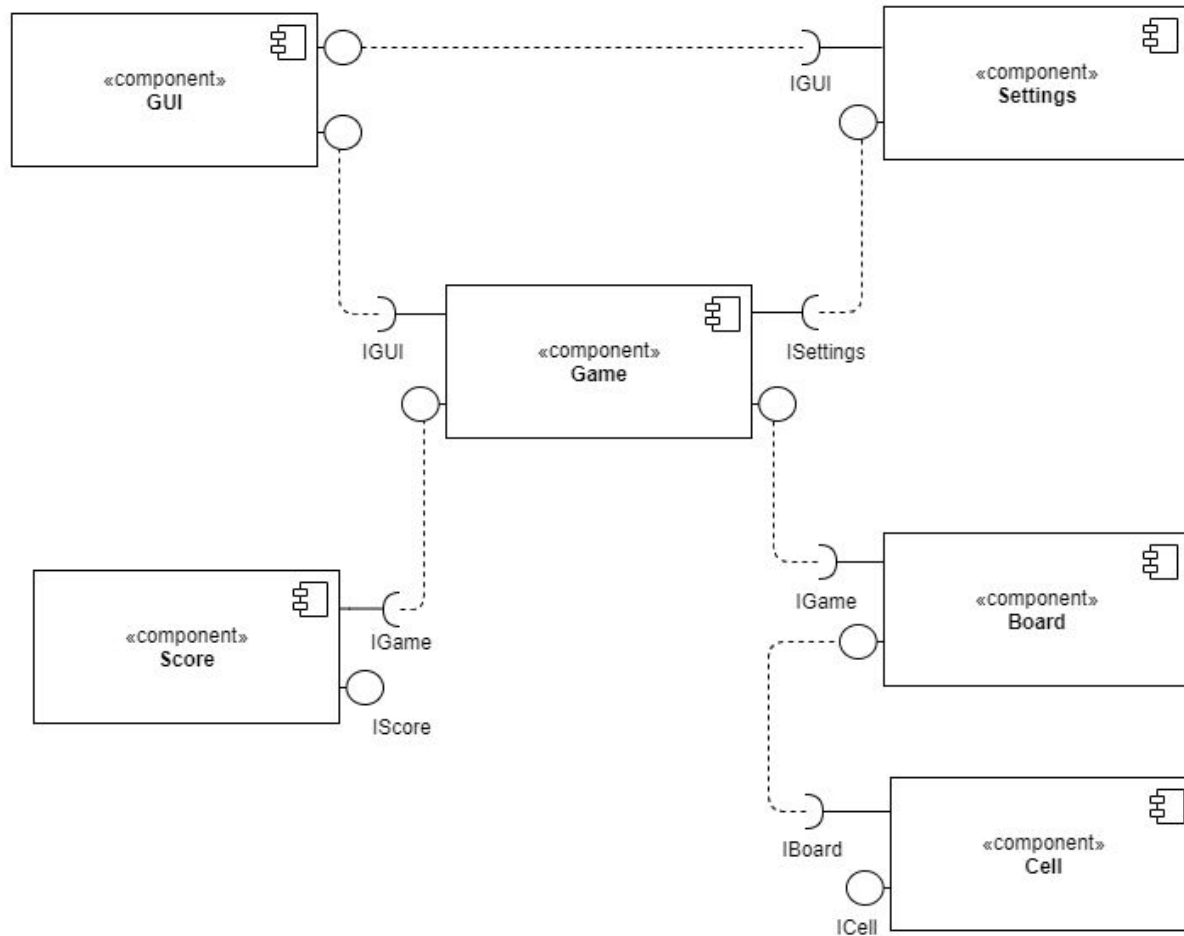
vs

Jogador 2

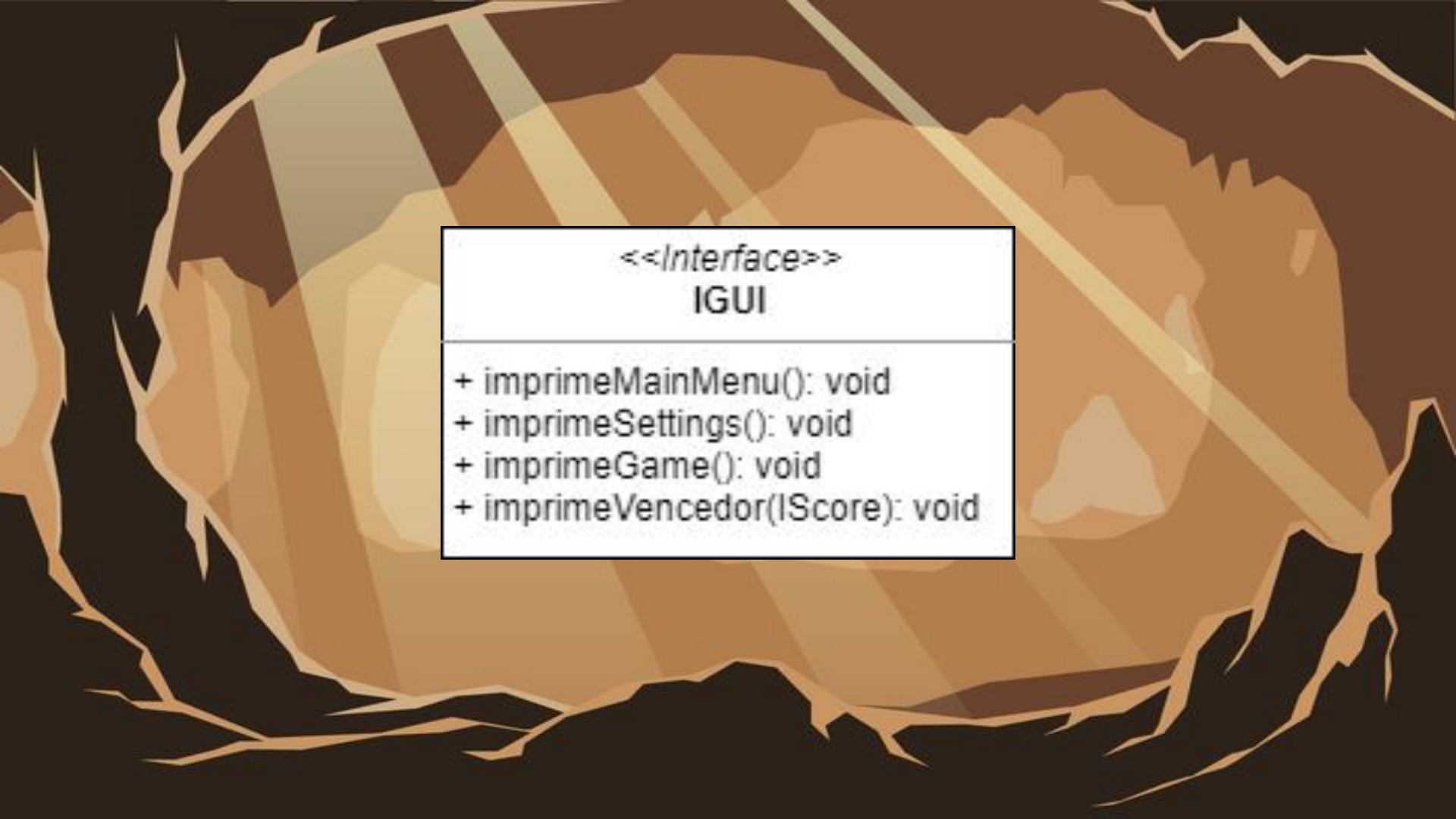
🟡  $3/4$



# COMPONENTES DO PROJETO







```
<<Interface>>
```

IGUI

---

- + imprimeMainMenu(): void
- + imprimeSettings(): void
- + imprimeGame(): void
- + imprimeVencedor(IScore): void



```
<<Interface>>
```

```
ISettings
```

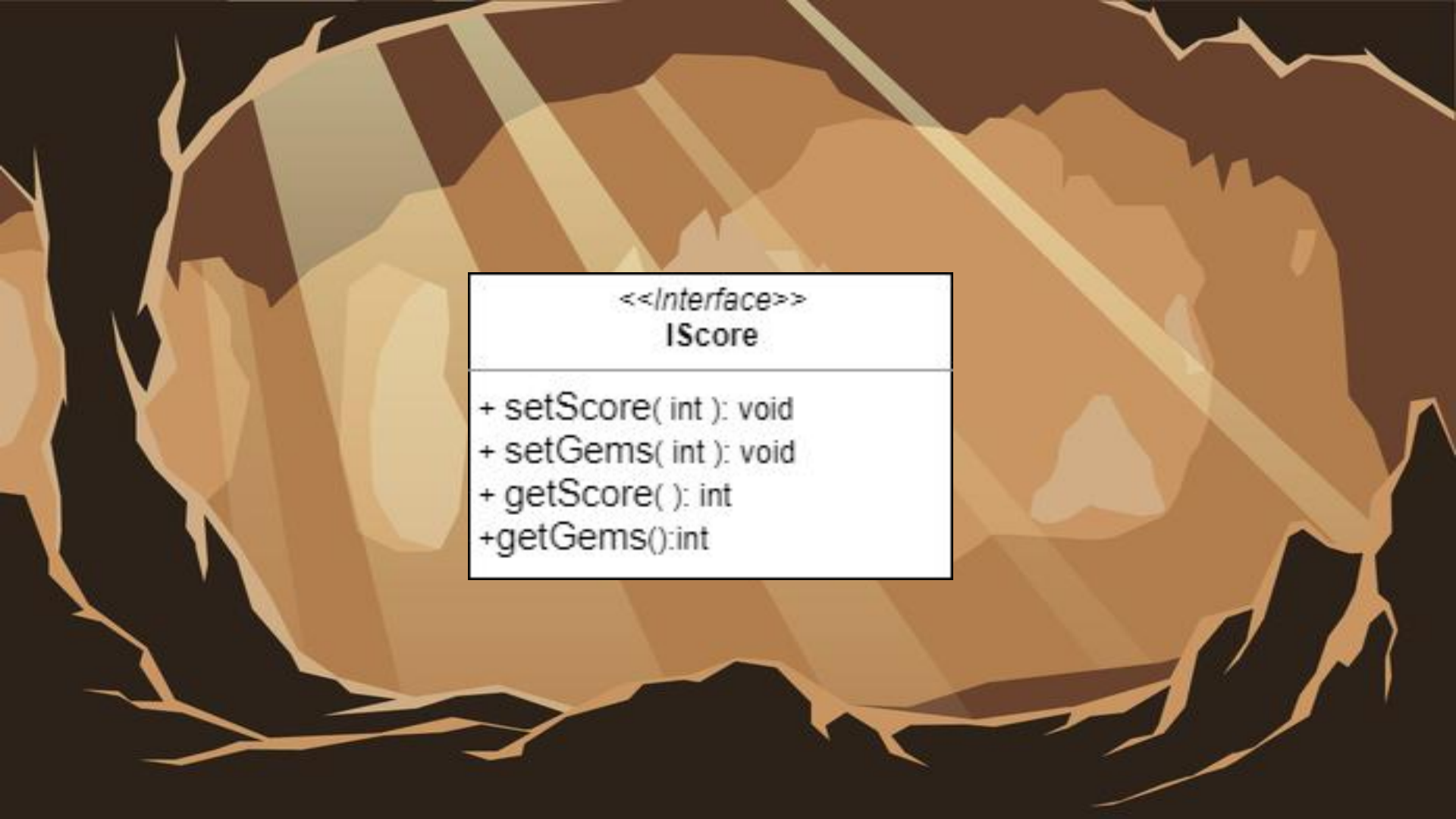
```
+ setSettings(int [ ]): void
```

```
+ getSettings(): int [ ]
```

*<<Interface>>*

**IGame**

+ inicializarJogo(ISettings): void  
+ verificarJogada(): int  
+ verificarFinal(): boolean  
+ encerrarJogo(): int  
+ atualizarScore(): void  
+ atualizarCampo(): void



*<<Interface>>*  
**IScore**

+ setScore( int ): void  
+ setGems( int ): void  
+ getScore( ): int  
+getGems():int



```
<<Interface>>  
IBoard
```

```
+ revelarCelula(): int  
+ revelar4Celulas(): void  
+ visualizarCelula(int, int): int  
+ colocarBomba(int, int): void  
+ colocarBombaInvisivel(int, int): void  
+ descobrirGema (): int [ ]
```





```
<<Interface>>
```

**ICell**

---

```
+ getCell(): int  
+ setCellReveal(boolean): void  
+ setCellView(boolean): void  
+ setCellContent(int): void
```

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