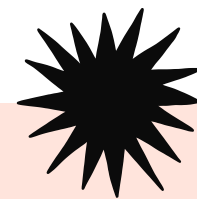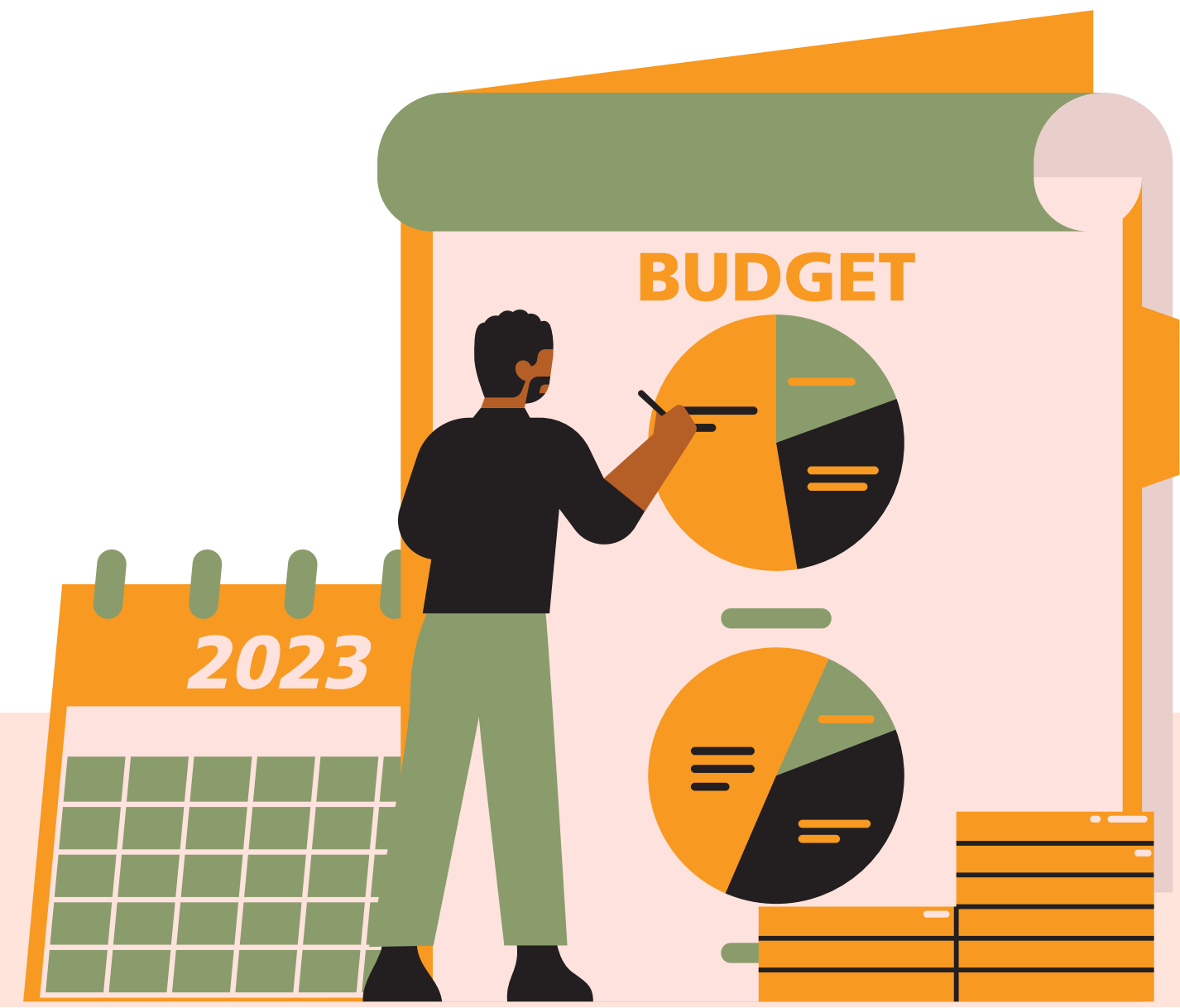A game that helps to manage finances

THE FINANCE GAME

Presented by Iren Arakelyan & Harutyun Grigoryan

Goal

The main goal of creating this game is to help people manage their finances, in different life situations.
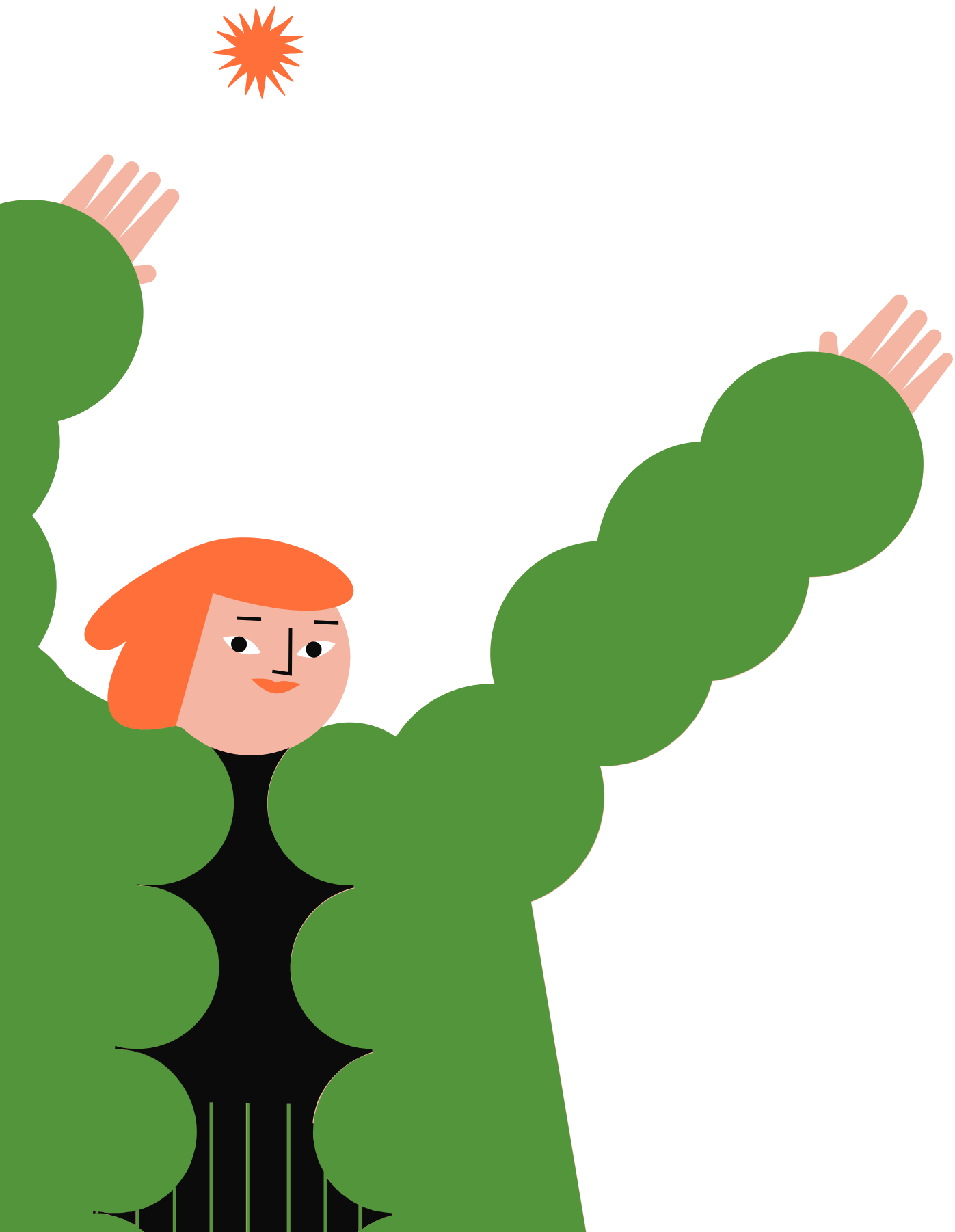
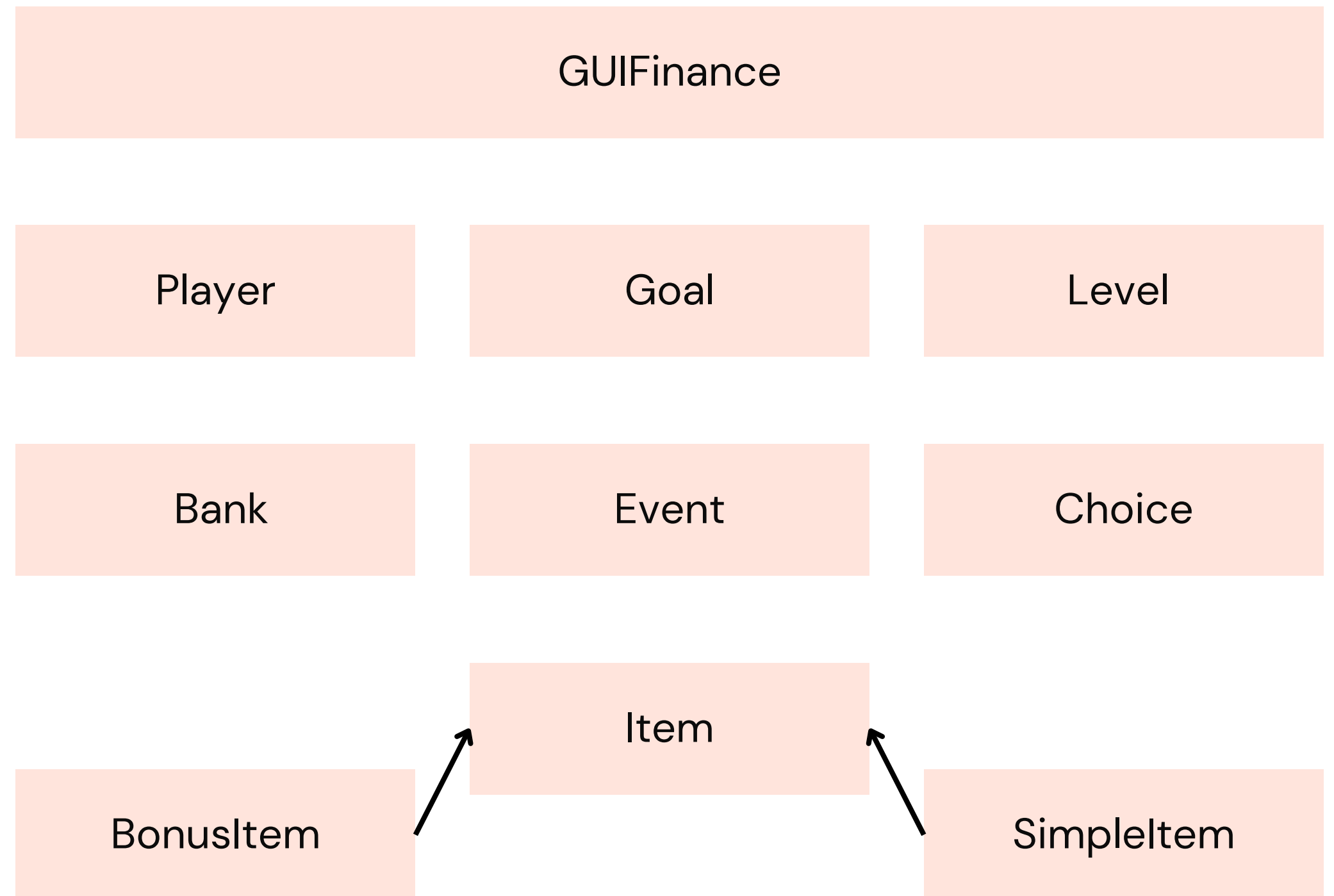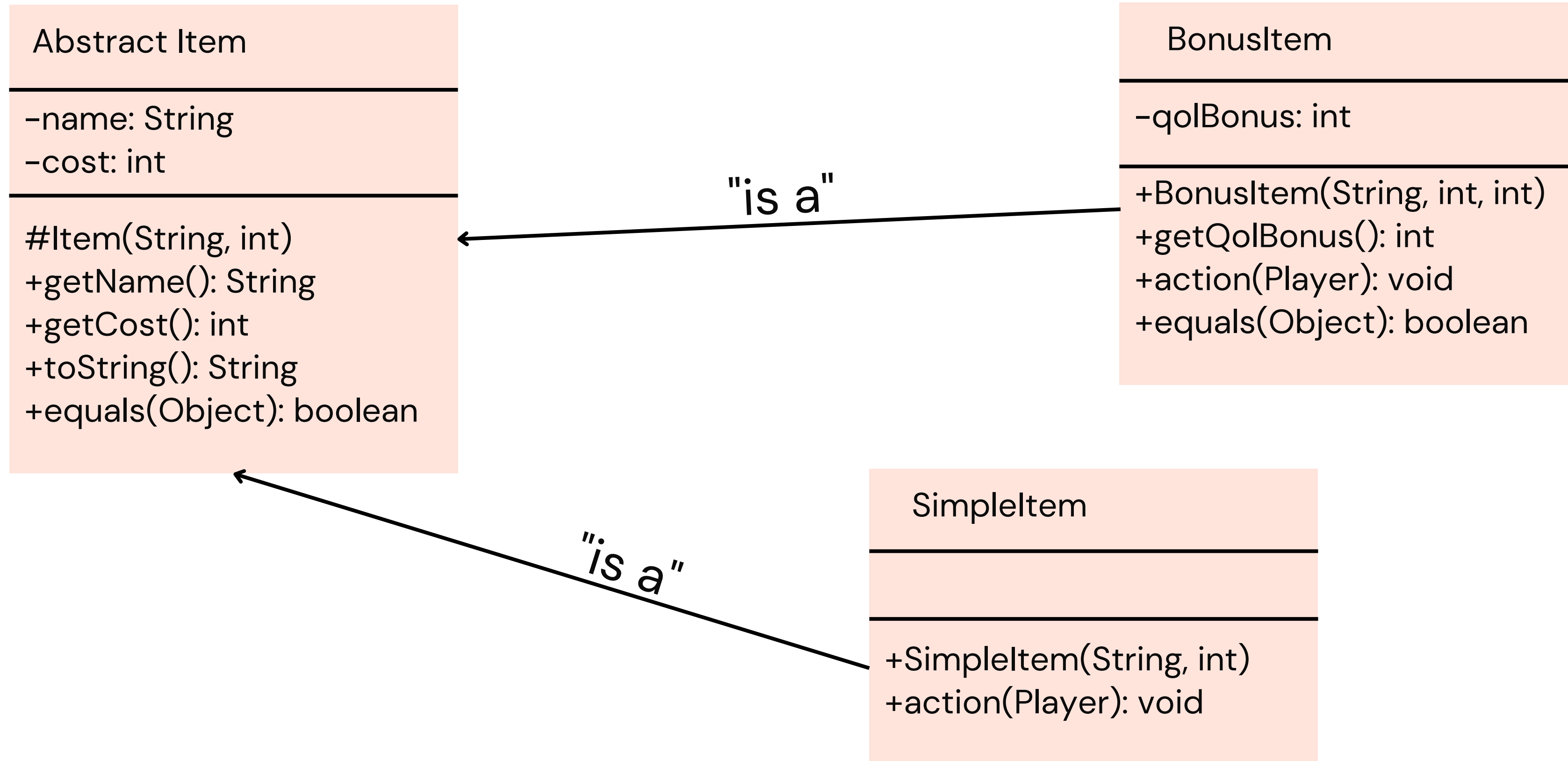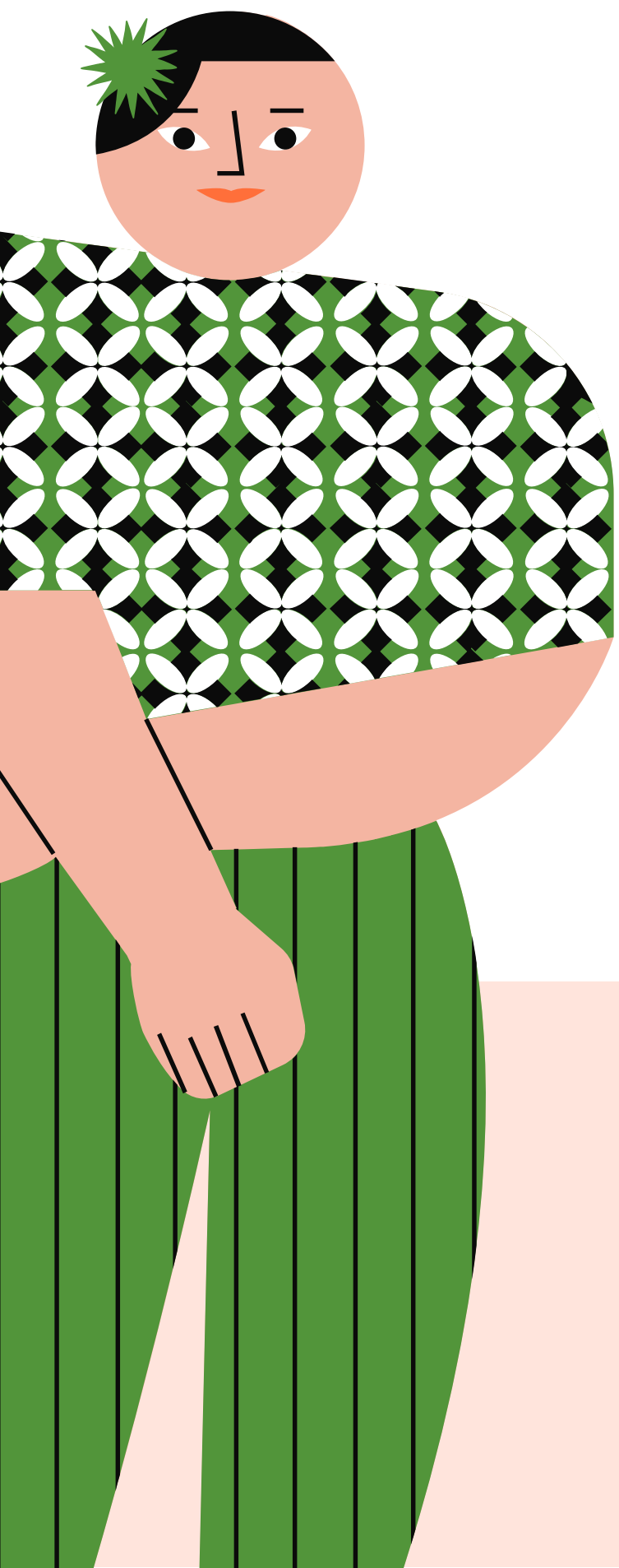# A brief overview

1 Levels

2 Goals

3 Events

4 QOL

Defined Classes

The classes we defined to get the final outcome

GUIFinance

Player	Goal	Level

Bank	Event	Choice

BonusItem → Item ← SimpleItem

UML for Item classes ✴ Inheritance

Abstract Item

–name: String
–cost: int

#Item(String, int)
+getName(): String
+getCost(): int
+toString(): String
+equals(Object): boolean

BonusItem

–qolBonus: int

+BonusItem(String, int, int)
+getQolBonus(): int
+action(Player): void
+equals(Object): boolean

"is a"

SimpleItem

+SimpleItem(String, int)
+action(Player): void

"is a"

Fascinating code chunks

```java
public String toString()
{

    StringBuilder b = new StringBuilder("");
    for(int i = 1; i <= choices.length; i++)
    b.append(i + ") " + choices[i-1].toString() +"\n");
    return description + "\n" + b.toString();
}
```

Uses StringBuilder for efficiency

ItemReader

This code reads an array of Items objects from a text file.

```java
public static Item[] readItems(String path)
{
    Scanner sc = null;
    try
    {
        sc = new Scanner(new FileInputStream(path));
    }
    catch(IOException e)
    {
        System.out.println("Error:" + e.getMessage());
        System.exit(0);
    }
    int size = sc.nextInt();
    sc.nextLine();
    Item[] items = new Item[size];
    int i = 0;
    while(sc.hasNextLine())
    {
        String itemString = sc.nextLine();
        String[] itemElements = itemString.split(" ");
        if(itemElements.length == 3)
        {
            items[i] = new BonusItem(itemElements[0], Integer.parseInt(itemElements[1]),
                                     Integer.parseInt(itemElements[2]));
        }
        else if (itemElements.length == 2)
        {
            items[i] = new SimpleItem(itemElements[0], Integer.parseInt(itemElements[1]));
        }
        i++;
    }
    return items;
}
```

Thank you for attention!!

Q&A?