

# EXAMPLE 50: UNDERSTAND HOW “PUBLIC” INHERITANCE BEHAVES

**WITHIN A CLASS, MEMBER VARIABLES AND  
FUNCTIONS ARE MARKED WITH "ACCESS MODIFIERS"**

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PUBLIC, PRIVATE, PROTECTED**

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**SPECIFIED WITHIN A CLASS**

**GOVERN HOW BASE CLASS  
MEMBERS ARE ACCESSED IN  
DIRECTLY DERIVED CLASSES**

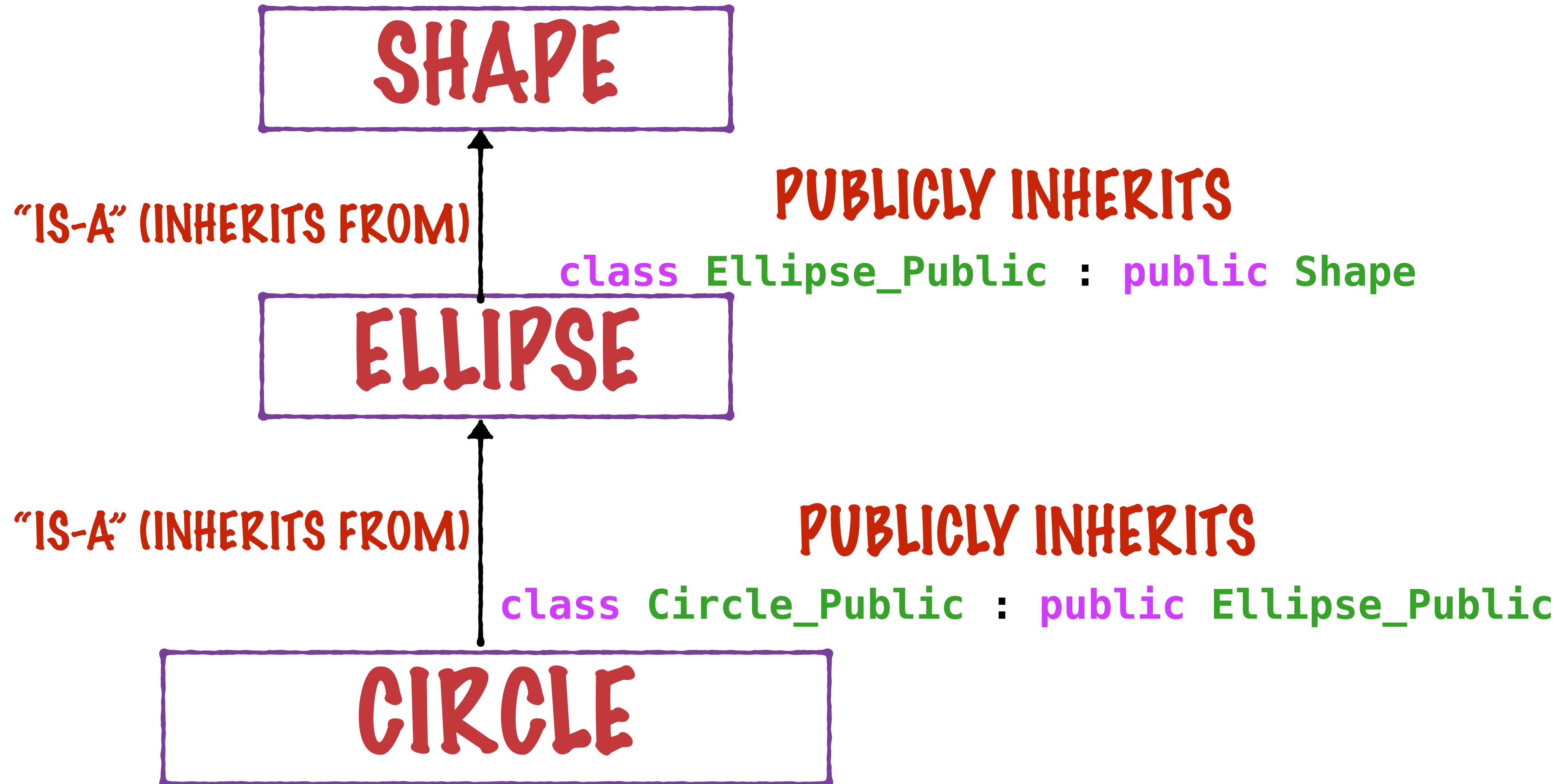
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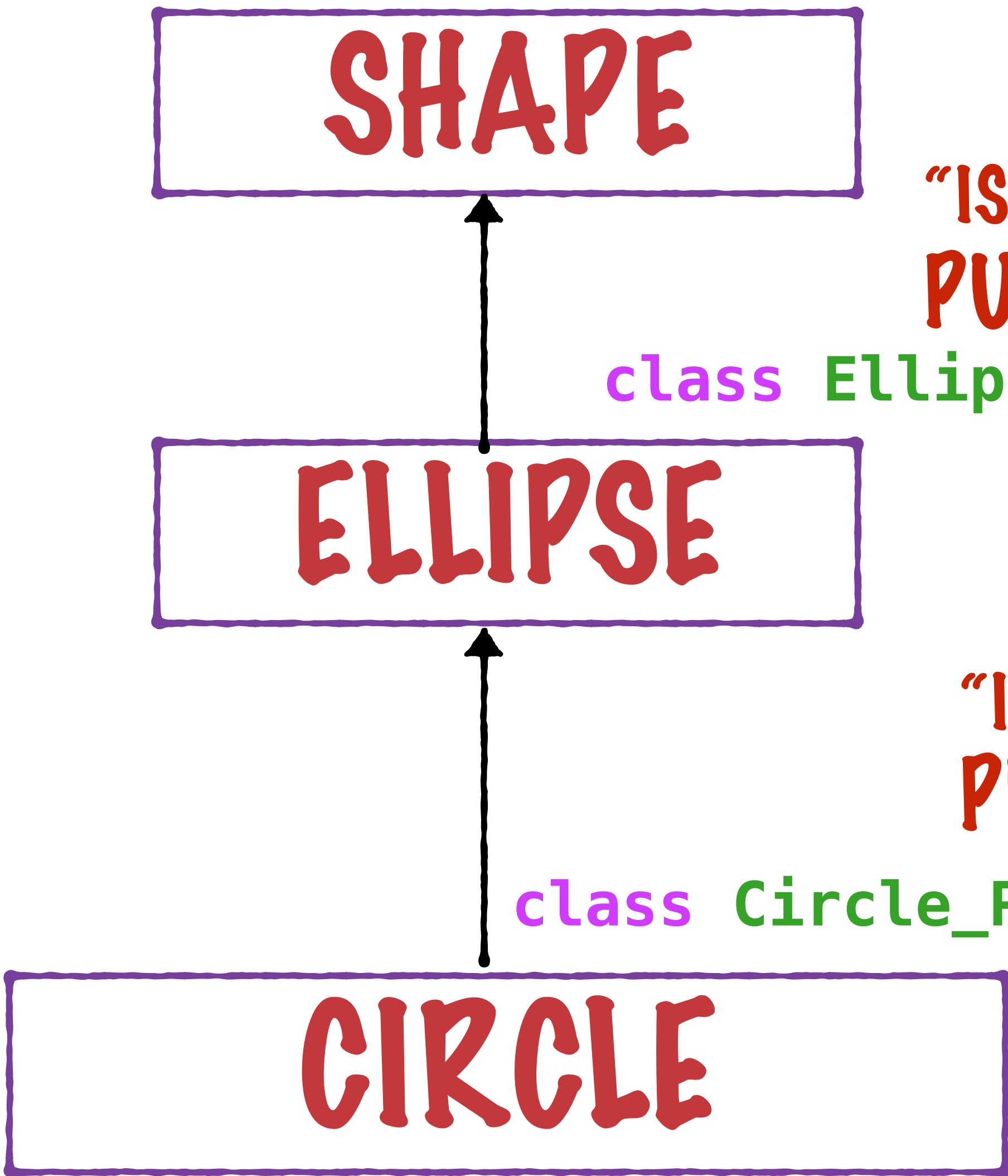
**SPECIFIED BETWEEN A BASE  
AND DERIVED CLASS**

**GOVERN HOW BASE CLASS  
MEMBERS ARE ACCESSED IN  
INDIRECTLY DERIVED CLASSES**



# EXAMPLE 50: UNDERSTAND HOW "PUBLIC" INHERITANCE BEHAVES





"IS-A" (INHERITS FROM)  
PUBLICLY INHERITS

`class Ellipse_Public : public Shape`

"IS-A" (INHERITS FROM)  
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`class Circle_Public : public Ellipse_Public`

`class Shape`

```
{  
private:    int privateData;  
protected: int protectedData;  
public:    int publicData;  
};
```

WHICH OF THESE  
VARIABLES ARE  
VISIBLE IN THE  
OTHER 2 CLASSES?

SHAPE

ELLIPSE

CIRCLE

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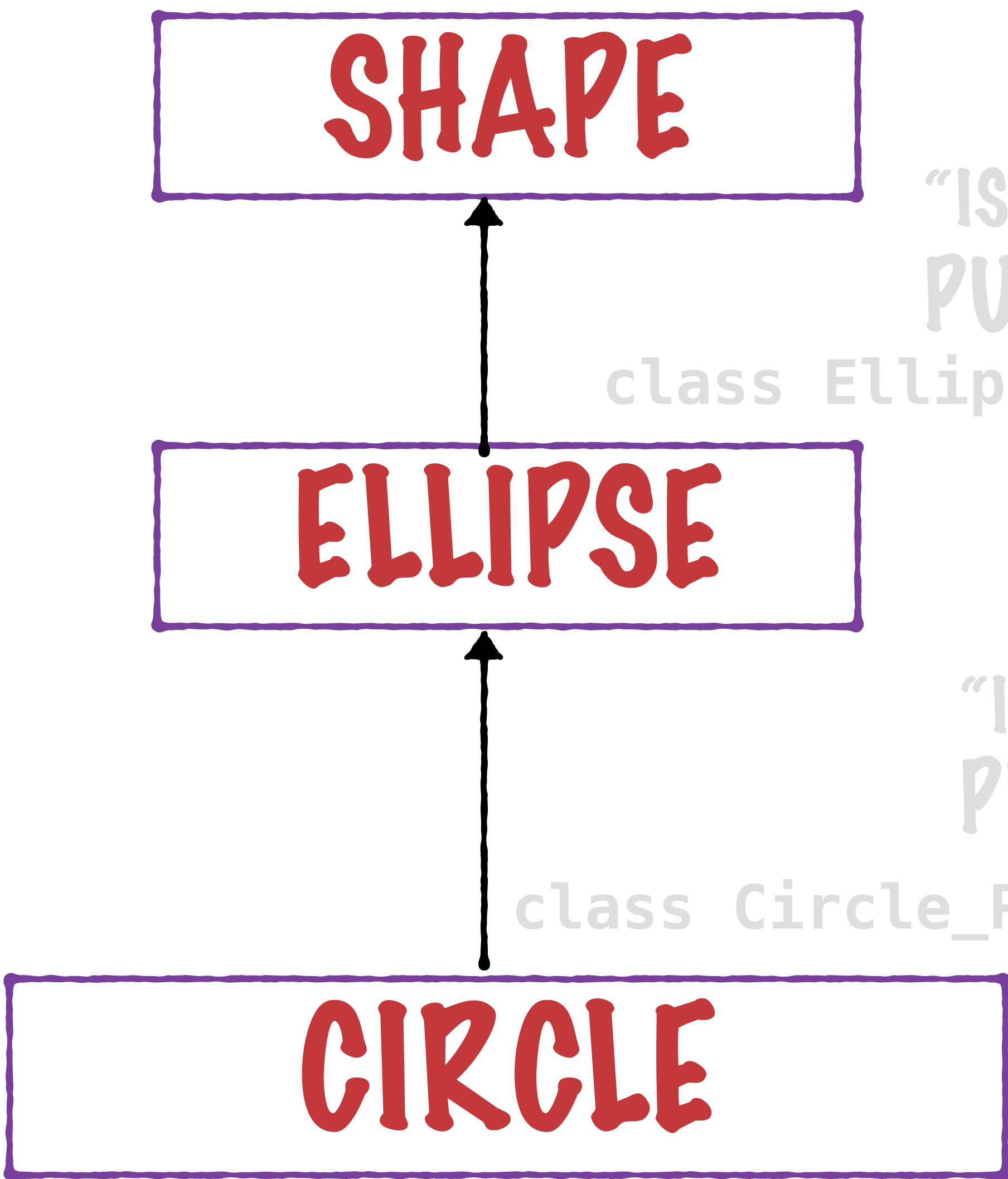
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