Design Patterns  
  
  
**Summary Table in Simple Terms**

| **Pattern** | **What it Solves** | **Real-World Example** |
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| **Singleton** | Ensures only one instance of something exists | A **single** passport for a citizen |
| **Factory Method** | Decides which product to create based on input | **Restaurant menu** giving you different options |
| **Adapter** | Makes two incompatible things work together | Using a **plug adapter** to charge abroad |
| **Facade** | Simplifies a complex system | A **smartphone app** with easy access to complex features |
| **Observer** | Notifies when something changes | Getting a **notification** for a sports score |
| **Strategy** | Switches between different ways of doing something | Different **sale strategies** in shoppin |