

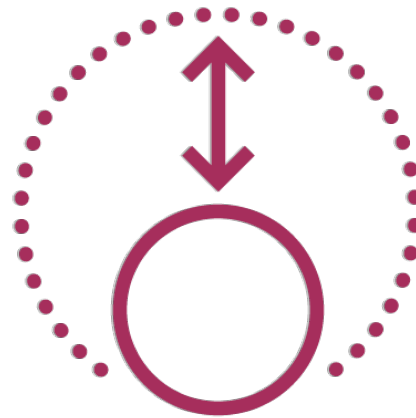
Creating Interfaces to Add Extensibility



Why Interfaces?



Maintainable

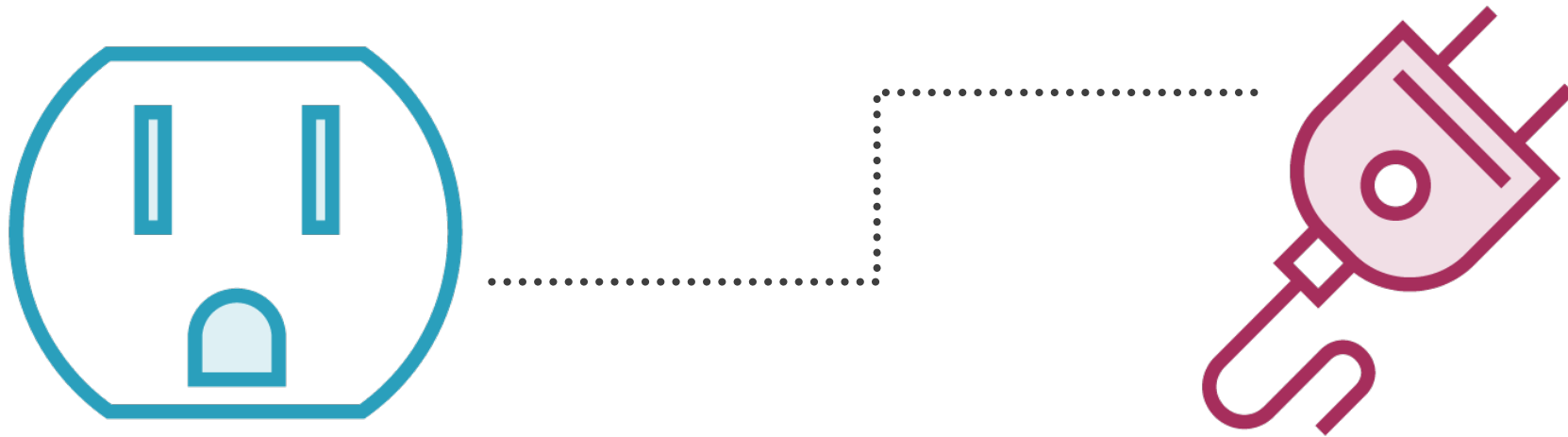


Extensible



Easily testable

Extensible



Different Data Sources

Relational Databases

- Microsoft SQL Server, Oracle, MySQL, etc.

Document / Object Databases (NoSQL)

- MongoDB, Hadoop, RavenDB, etc.

Text Files

- CSV, XML, JSON, etc.

SOAP Services

- WCF, ASMX Web Service, Apache CXF, etc.

REST Services

- WebAPI, WCF, Apache CXF, JAX-RS, etc.

Cloud Storage

- Microsoft Azure, Amazon AWS,
Google Cloud SQL



Repository Pattern

Mediates between the domain and data mapping layers using a collection-like interface for accessing domain objects.

- **Fowler, et al. Patterns of Enterprise Application Architecture. Addison-Wesley, 2003**



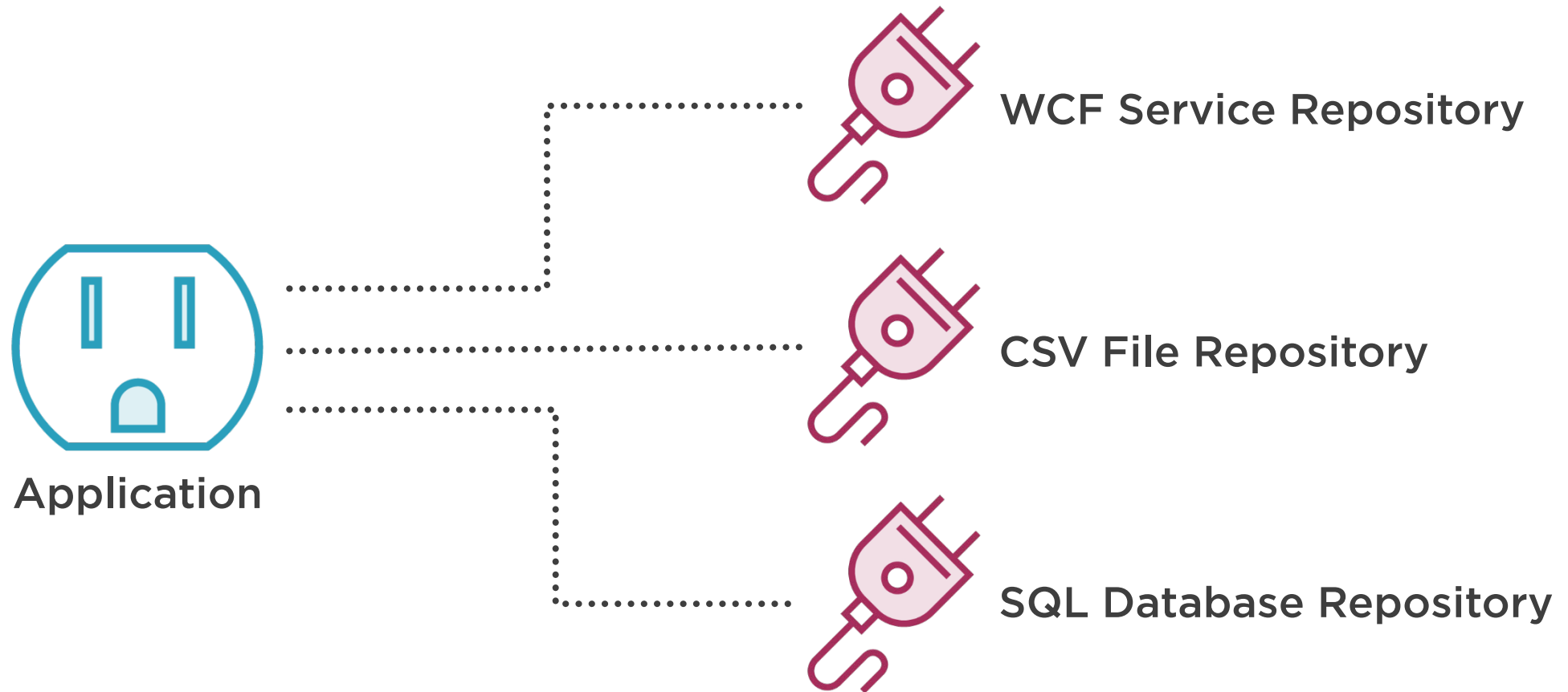
Repository Pattern



Layer to separate our application from the data storage technology

- Application
- Repository
- Data Storage

Pluggable Repositories



Simple Repository

Data Access
Operations

C **Create**

R **Read**

U **Update**

D **Delete**



Creating a Repository Interface

```
public interface IPersonRepository
{
    void AddPerson(Person newPerson);
    IEnumerable<Person> GetPeople();
    Person GetPerson(string lastName);
    void UpdatePerson(string lastName,
        Person updatedPerson);
    void UpdatePeople(IEnumerable<Person>
        updatedPeople);
    void DeletePerson(string lastName);
}
```

C

R

U

D



Summary



Repository Pattern

- Create
- Read
- Update
- Delete

How to Create and Implement a Custom Interface

- IPerson Repository

Easy Extensibility





UP NEXT:
Explicit Interface
Implementation

