Container Dependency Injection

Adrian Mularczyk

Description of the problem
Dependency injection
Container of dependency injection
Summary

Agenda

1. Description of the problem

2. Dependency injection

3. Container of dependency injection

4. Summary

Description of the problem

Dependency injection

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Dependency injection
Dependency injection kinds

Dependency injection

```
public class Foo
{
  public void DoSomeWork()
  {
    Bar bar = new Bar();
    bar.DoSomething();
  }
}
```

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Dependency injection

```
public class Foo
{
  public void DoSomeWork(Bar bar)
  {
    bar.DoSomething();
  }
}
```

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Dependency injection

```
public class Foo
{
  Bar _bar;
  public Foo(Bar bar)
  {
    _bar = bar;
  }
  public void DoSomeWork()
  {
    _bar.DoSomething();
  }
}
```

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Dependency injection
Dependency injection kinds

Dependency injection kinds

- Injecting by the constructor
- Injecting by the method
- Injecting by the property

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Container of dependency injection

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Summary

Basic operations
Registration types
Container operations

Basic operations

- Register,
- Resolve.

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Basic operations
Registration types
Container operations

Registration types

- Register as Transient,
- Register as Singleton,
- Register as Scope (Thread, HttpRequest),
- Register as FactoryMethod.

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Basic operations
Registration types
Container operations

Container

```
public class Container
{
  private List<Type> RegisteredTypes;

  public Container()
  {
    RegisteredTypes = new List<Type>();
  }

  ...
}
```

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Basic operations
Registration types
Container operations

Register

```
public void Register(Type type)
{
  RegisteredTypes.Add(type);
}
```

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Basic operations
Registration types
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Resolve

```
public object Resolve(Type type)
{
  if(!RegisteredTypes.Contains(type))
    throw new TypeNotRegisteredException();

  return CreateObjectOfType(type);
}
```

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Basic operations
Registration types
Container operations

RegisteredTypes

```
public class Container
{
  private List<RegisteredType>
RegisteredTypes;

  public Container()
  {
    RegisteredTypes = new
List<RegisteredType>();
  }

  ...
}
```

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Basic operations
Registration types
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RegisteredType

```
public class RegisteredType
{
  public Type RegisteredType;
  public RegistrationKind RegistrationKind;
  public object Value;
  public List<Scope, object> Scopes;
  ...
}
```

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Questions?

Thank you!