Refection in C#

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Where to use Reflection

- Normally compiler decision of types
  (**strongly typed language**)

- Sometimes we need the type information at runtime => reflection

- An examples Generic framework to do something
  - Json convert (e.g. Newtonsoft)
  - Entity framework

What is Reflection

<u>Metatype</u>

- Type t = obj.GetType();

<u>Kind of information</u>

- t.IsXXX (class, interface, abstract)
- t.GetProperties()   => PropertyInfo (name, type etc)
- t.GetMethods() => MethodInfo

    (name, parameters , return types etc.) => invoke methods

- t.BaseType

Call methods in Reflection

Example:

```
Type t = o.GetType();

// find
MethodInfo setIdMethod =
            t.GetMethods().First(m => m.Name == "set_Id");

// make call
setIdMethod.Invoke(o, new object[] { 12 });

// parameters is an array of values (though here only one)
```

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Small Demo

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