Organizing Application Flow with Action Filters

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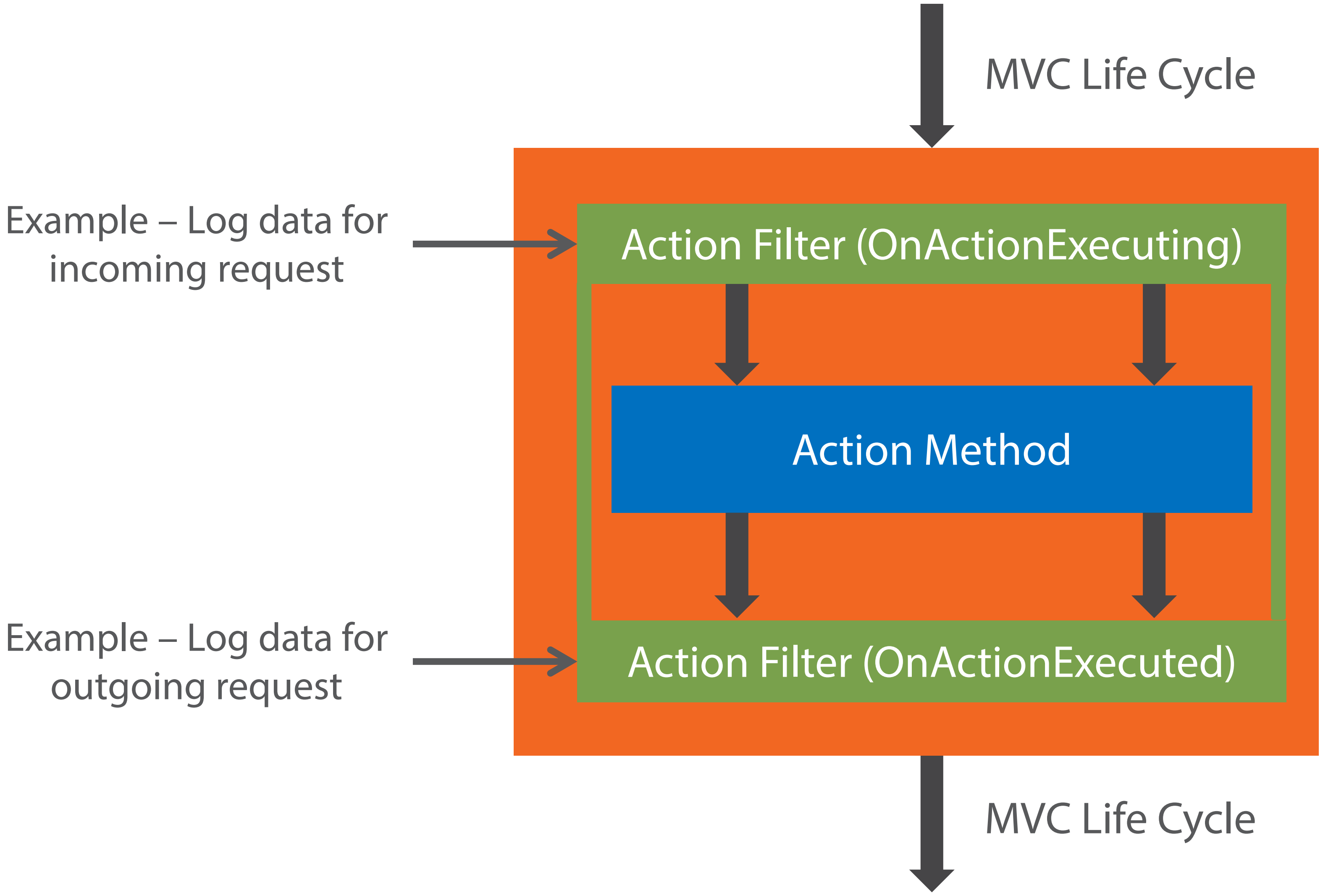
Understanding Action Filters

Action Filter Basics

```
public class SampleFilter : FilterAttribute, IActionFilter
   {
      public void OnActionExecuted(ActionExecutedContext filterContext)
      {
      }

      public void OnActionExecuting(ActionExecutingContext filterContext)
      {
      }
   }
```

Injecting Additional Logic



MVC Life Cycle

Example – Log data for incoming request

Action Filter (OnActionExecuting)

Action Method

Example – Log data for outgoing request

Action Filter (OnActionExecuted)

MVC Life Cycle

Controller Action Filter Methods

```
public class SampleController : Controller
  {
    public ActionResult Index()
    {
      return View();
    }

    protected override void OnActionExecuting(ActionExecutingContext filterContext)
    {
      base.OnActionExecuting(filterContext);
    }

    protected override void OnActionExecuted(ActionExecutedContext filterContext)
    {
      base.OnActionExecuted(filterContext);
    }
  }
```

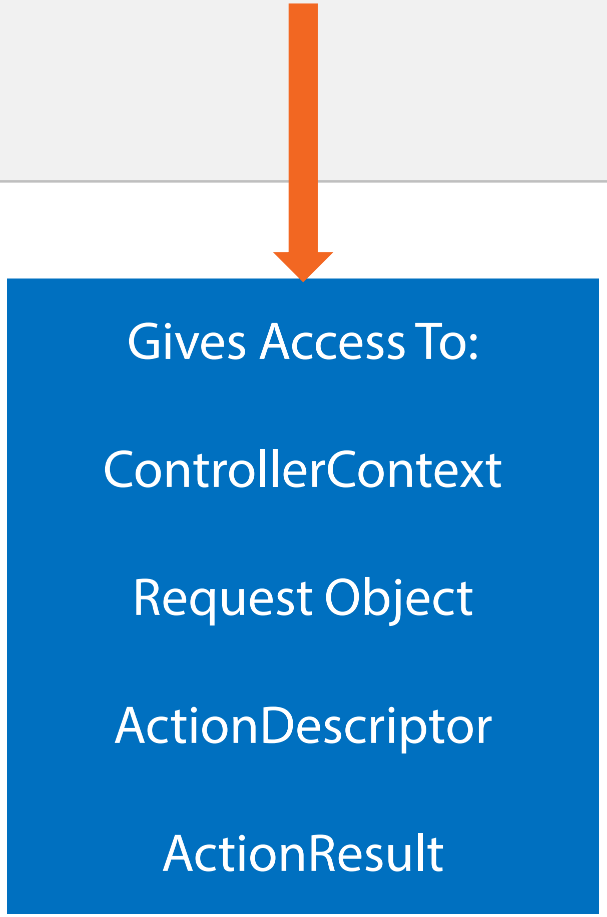
Other Alternatives

```
public abstract class ActionFilterAttribute : FilterAttribute, IActionFilter, IResultFilter
{
        public virtual void OnActionExecuting(ActionExecutingContext filterContext)
        {
        }
        public virtual void OnActionExecuted(ActionExecutedContext filterContext)
        {
        }
        public virtual void OnResultExecuting(ResultExecutingContext filterContext)
        {
        }
        public virtual void OnResultExecuted(ResultExecutedContext filterContext)
        {
        }
}
```

Understanding Filter Context

```
public void OnActionExecuting(ActionExecutingContext filterContext)
{

}
```



Gives Access To:

ControllerContext

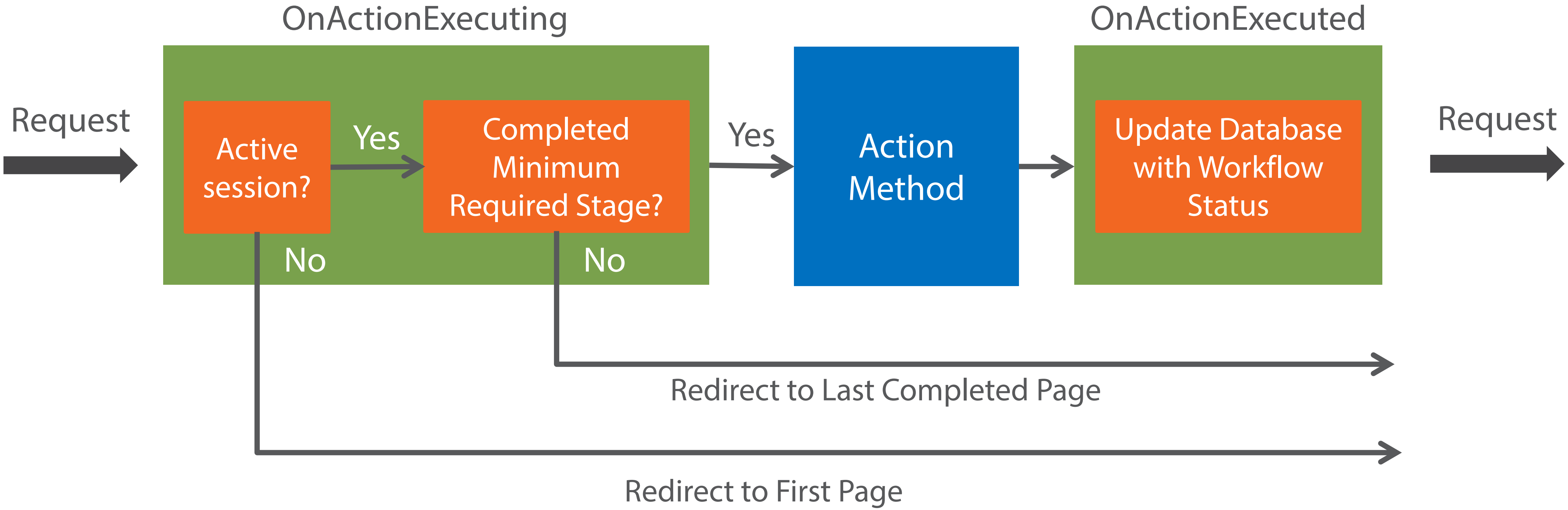
Request Object

ActionDescriptor

ActionResult

(And More!)

Filtering the Request



Summary

- Action Filters can be used to inject logic into the MVC pipeline
- Implement the IActionFilter interface and execute right before and after Action Methods
- Expose a useful context object for working with requests
- Can be applied at method, controller, or global scope