# 3. Using Models and Filters

## Task 3: Using Models and Custom Filters

### Objectives:  
- Create model classes (Employee, Department, Skill)  
- Add action methods using models and `[FromBody]`  
- Create and apply custom filters

### 1. Creating Model Classes  
Add under `Models/` folder and wrap in namespace:  
```csharp  
namespace MyWebApiApp.Models  
{  
 public class Department {...}  
 public class Skill {...}  
 public class Employee {...}  
}  
```

### 2. Controller Usage with Models  
Use `[HttpGet]`, `[HttpPost]`, `[HttpPut]` and return `List<Employee>` or single object.

### 3. FromBody Explanation  
Allows binding the request body JSON to C# model.

### 4. Custom Filters  
- Create a filter: inherit `ActionFilterAttribute`  
- Override `OnActionExecuting()` to validate headers

### 5. Example: Authorization Filter  
```csharp  
public class CustomAuthFilter : ActionFilterAttribute  
{  
 public override void OnActionExecuting(ActionExecutingContext context)  
 {  
 if (!context.HttpContext.Request.Headers.ContainsKey("Authorization"))  
 {  
 context.Result = new BadRequestObjectResult("Invalid request - No Auth token");  
 }  
 }  
}  
```  
Apply with `[TypeFilter(typeof(CustomAuthFilter))]`.

