

ASP.NET BOILERPLATE



Be a Hero on Day One of Your Next ASP.Net Project

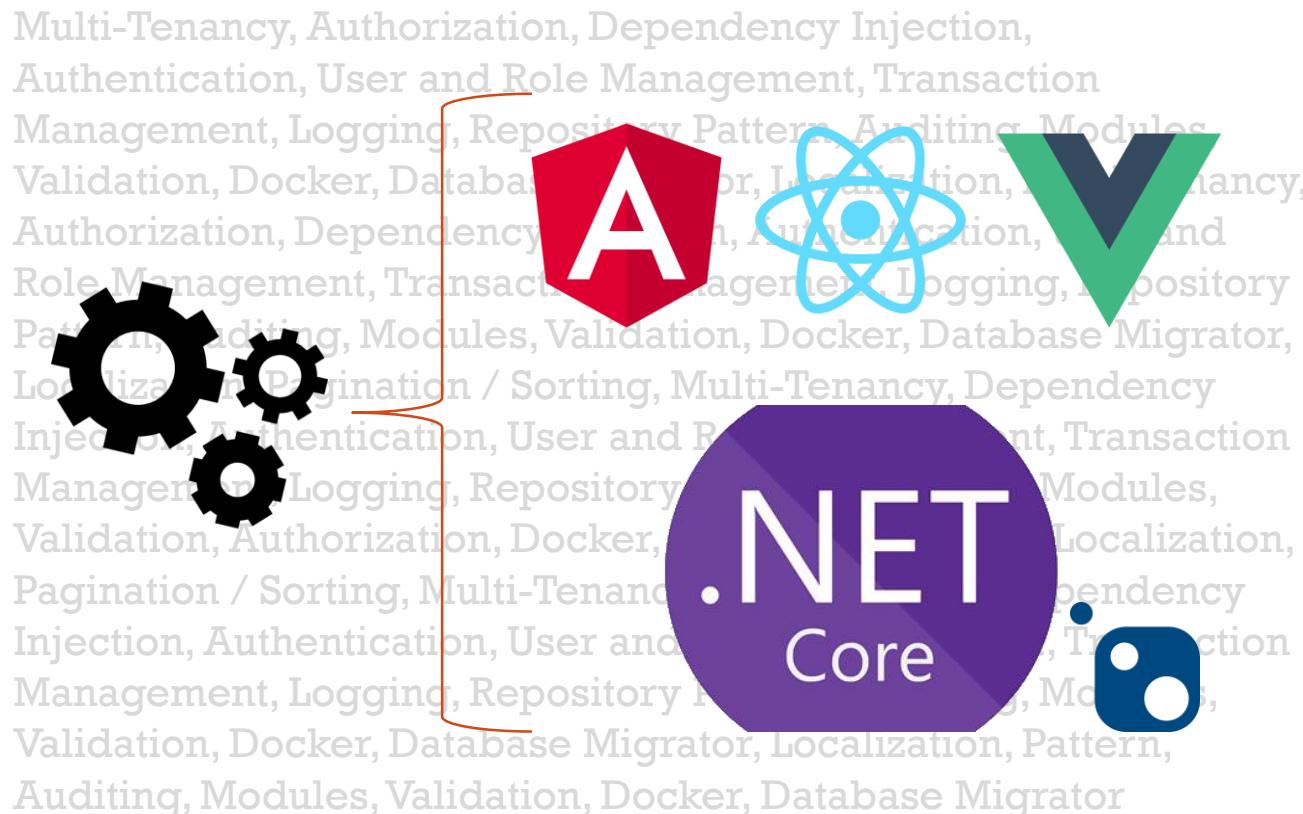
Lee Richardson

@lprichar



WHAT IS ASP.NET BOILERPLATE?

- It Is A:
 - One-time code generator
 - Framework
- For: New projects
- It Provides:
 - End-to-end 100% working site
 - Foundational Features
 - Best practices





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aspnetboilerplate / aspnetboilerplate

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821

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7.6k

Fork

2.9k

Code

Issues 174

Pull requests 21

Actions

Security

Insights

ASP.NET Boilerplate - Web Application Framework <https://aspnetboilerplate.com>

c-sharp

best-practices

aspnet

aspnetcore

domain-driven-design

architecture

framework

dotnet

multi-tenancy

abp

aspnet-core

dotnet-core

nlayer-architecture

5,925 commits

19 branches

0 packages

190 releases

132 contributors

MIT

Branch: dev ▾

New pull request

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ismcagdas Merge pull request #5023 from aspnetboilerplate/maliming/SimpleType ...

Latest commit 6dd98bb 3 days ago

.github

Standardize GitHub

2 years ago

doc

use username as single word

17 days ago

nupkg

removed packages which doesn't support .NET core 3.0

last month

src

Normalize simple types of DateTime(asp net core 3.x)

3 days ago

test

Normalize simple types of DateTime(asp net core 3.x)

3 days ago

tools

Updated nuget.exe to 4.4.1.

2 years ago

.gitattributes

gitattributes file

6 years ago

.gitignore

Added enum test

last year

Default\admin
admin@defaulttenant.com

Users

...

User name	Full name	Email address	Is active	Actions
admin	admin admin	admin@defaulttenant.com	<input checked="" type="checkbox"/>	



Home page

To Do's

Users

Roles

About

Multi Level Menu





investigator
investigator@itech.com

Home page

Eligibility Checks

Map

Reports



Admin



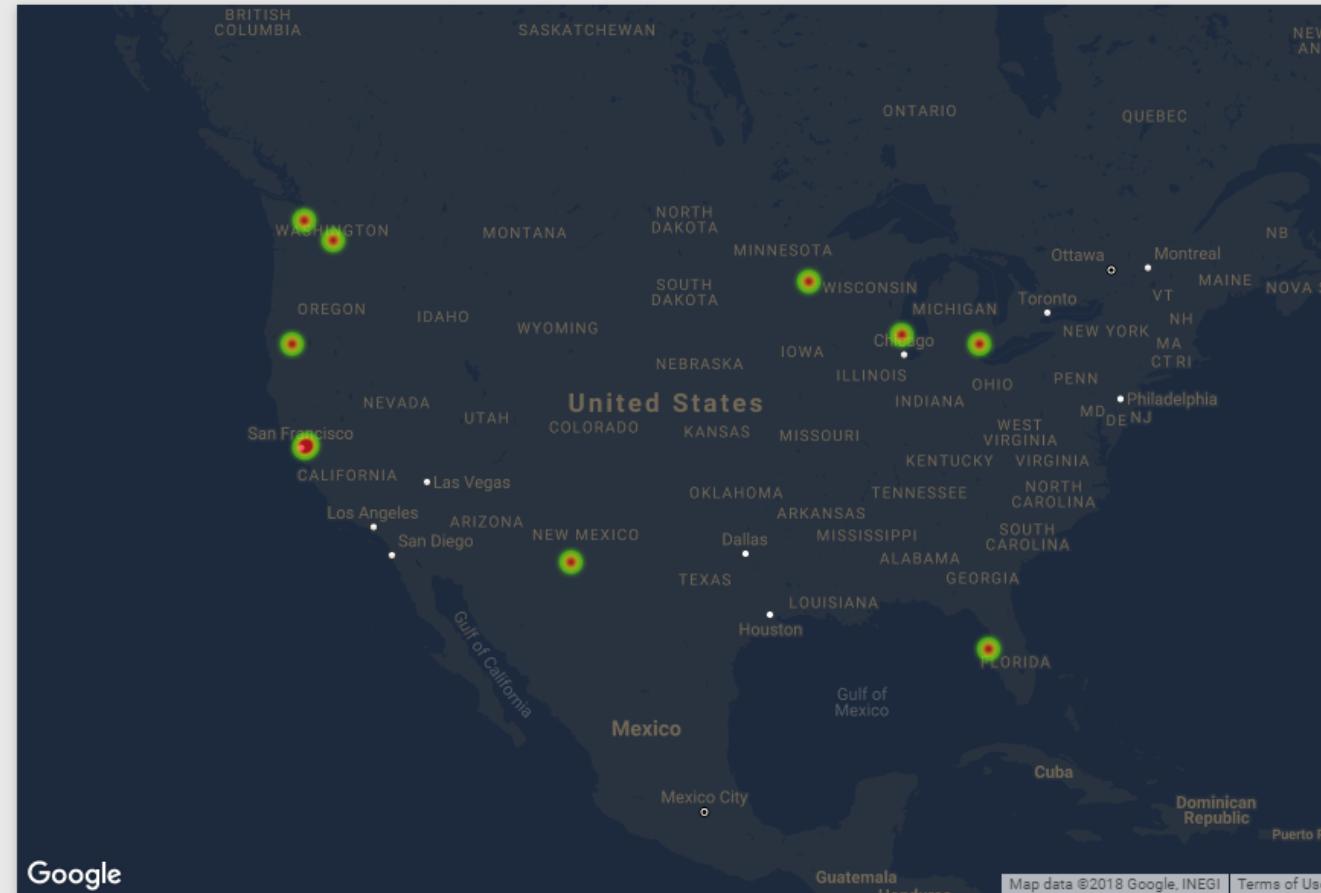
Users

Vendors

Vendor Response Fields

Blacklist Admin

About



Google



APPLICANTS AGE 65+
6



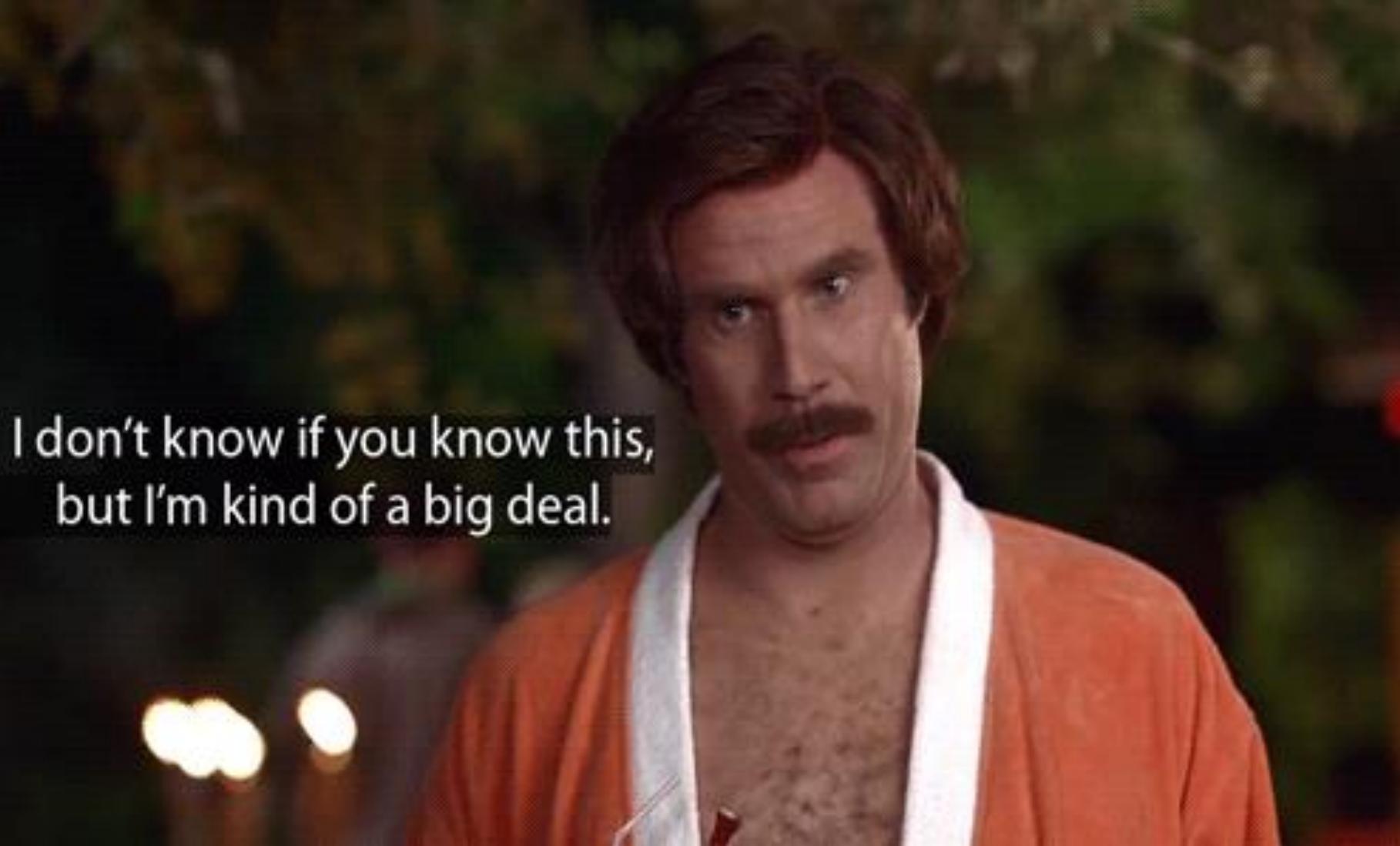
OUTSIDE USA
0



BLACKLISTED
3



META SCORE 900-999
1

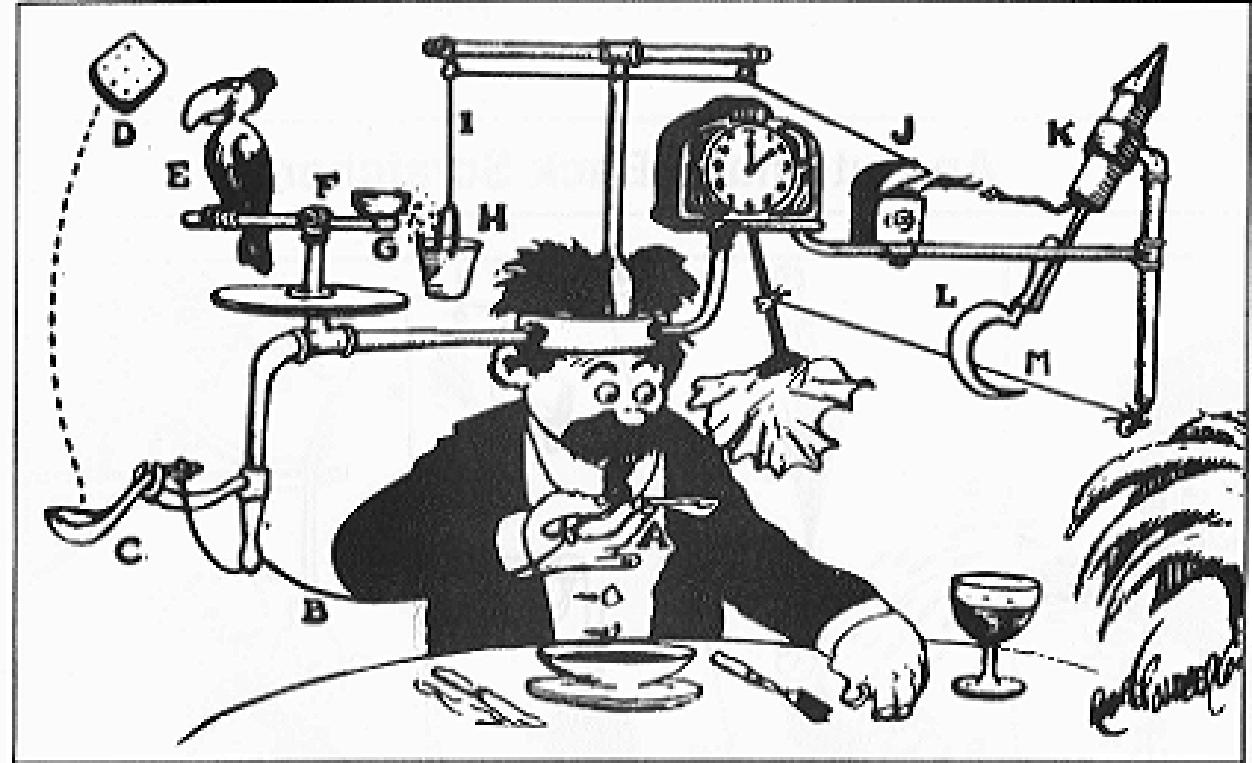
A close-up shot of Ron Swanson, a man with dark brown hair and a mustache, wearing an orange cardigan over a white t-shirt. He is looking directly at the camera with a serious expression. The background is blurred green foliage.

I don't know if you know this,
but I'm kind of a big deal.

BENEFITS

- Get up to speed fast
- Pre-implemented best practices
- Foundational Features (Authorization)
- Well documented
- Free and Open Source
- Enterprise-consistency

Self-Operating Napkin



Startup Templates

Get started with ASP.NET Boilerplate using a free or premium template.

BEWARE...

Free Startup Templates

Select tools you like and let it to create a solution for you.

ASP.NET Core 2.x ASP.NET MVC 5.x

Target Framework:

.NET Core (Cross Platform)

.NET Core (Cross Platform)

Full .NET Framework

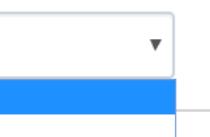
Single Page Web Application



Multi Page Web Application

Web application with server rendered

HTML; ASP.NET MVC & jQuery.



Single Page Web Application



Vue.js

Choose Carefully

Yea, Docker, Cross Platform, Modern, but:

- No Encrypted Columns
- Only Table-Per-Hierarchy Inheritance (no TPT)
- Less Query Optimization (EF Core only got group by in 2.1, then lost it in 3.0!)

Single Page Web Application



React



Dashboard

Administration

Organization Units

Roles

Users

Languages

Audit logs

Subscription

Visual Settings

Settings

Domo UI Components

Dashboard

statistics and reports

Total Profit

\$ 8393

All Customs Value

Change

76%

New Feedbacks

4444

Customer Review

Change

New Orders

Fresh Order Amount

Change

Sales Summary

Daily

Weekly

Monthly

Total Sales

26681 \$

Revenue

5277 \$

Expenses

6999 \$

Growth

7621 \$



General Stats

C Reload

+38%

+21%

+44%

1 New notifications

Set all as read

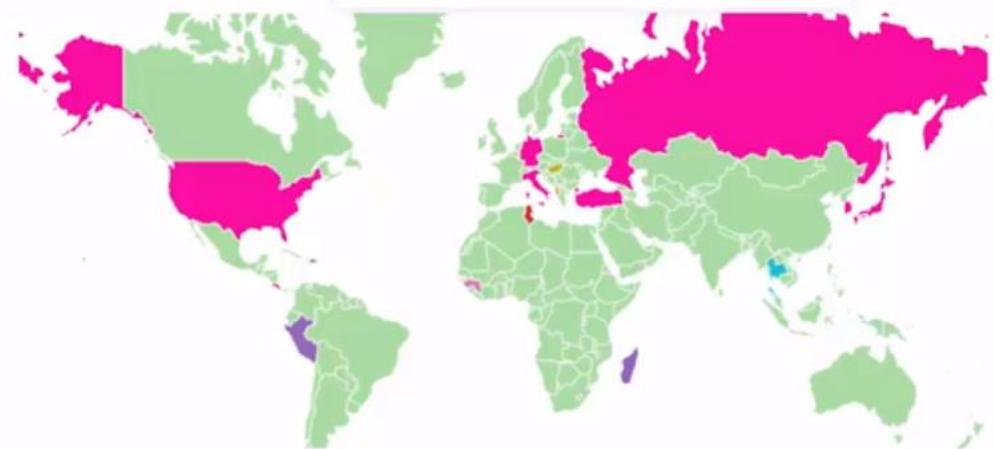
Settings

402

Welcome to
AspNetZeroDemo!Notification system is used to
inform you for intended
events. You can...2017-11-30
13:31:25
set as read

57%

See all notifications



Daily Sales



ENTERPRISE FEATURES

- Social logins
- LDAP (Active Directory) / ADFS
- Forgot password & reset
- Two Factor authentication
- OpenId Connect login
- User lockout
- User profile / change password
- Identity Server integration
- Chat (with SignalR)
- Show website logs / clear caches
- Xamarin mobile application
- Code generation extension
- Support



PRICING

Choose a license

\$ 1,499

REGULAR LICENSE

- Develop single product
- Up to 3 developers
- Full source code ^[1]

RECOMMENDED

\$ 2,899

ENTERPRISE LICENSE

- Develop up to 3 products
- Up to 10 developers
- Full source code ^[1]

\$ 4,499

ULTIMATE LICENSE

- Develop up to 6 products
- Up to 20 developers
- Full source code ^[1]



OPEN SOURCE

WEB APPLICATION FRAMEWORK

FOR ASP.NET CORE

ABP is a complete architecture and strong infrastructure to create modern web applications! Follows best practices and conventions to provide you a SOLID development experience.

[⟨⟩ SOURCE CODE](#) [GET STARTED →](#)[Latest release logs*](#)

INFRASTRUCTURE

ARCHITECTURE

MODULAR

DON'T REPEAT YOURSELF

DEVELOPER FOCUSED



Domain Driven Design

Designed and developed based on DDD patterns and principles. Provides a layered model for your application.



Multi-Tenancy

ABP framework not only supports to develop multi-tenant applications, but also makes your code mostly unaware of the multi-tenancy.



Built-In Bundling & Minification

Stop to use external tools for bundling & minification. ABP offers a simpler, dynamic, powerful, modular and built-in way!



Theming

Theming system allows to develop your application & modules theme independent by defining a set of common base libraries and layouts, based on the latest Bootstrap framework.



Authorization

>Advanced authorization with user, role and fine-grained permission system. Built on the Microsoft Identity library.



Cross Cutting Concerns

Don't repeat yourself to implement all these common stuff again & again. Focus on your business code and let ABP them automate them by conventions.



Virtual File System

Embed views, scripts, styles, images... into packages/libraries and reuse in different applications.



Bootstrap Tag Helpers & Dynamic Forms

Built-in background job system that can be integrated to Hangfire, RabbitMQ or any tool you like.



ABPIO OR ASP.NET BOILERPLATE?



Lee (P)?Richardson 🇺🇸 @lprichar · Nov 7

@ismcagdas qq: what's the end of life plan for [asp.net](#) boilerplate? Is there an upgrade path to abp?

1



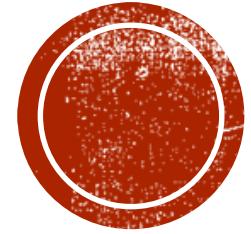
Halil İbrahim Kalkan
@hibrahimkalkan

Replies to [@lprichar](#) and [@ismcagdas](#)

We will create a migration guide (github.com/abpframework/a...). There is not end of life plan for [asp.net](#) boilerplate yet. It is still in active development.

<https://github.com/abpframework/abp/issues/2120>





FRONT-END FEATURES



```
chunk {1039} 1039.js, 1039.js.map () 7.63 kB [rendered]
chunk {styles} styles.js, styles.js.map (styles) 543 kB [initial] [rendered]
chunk {vendor} vendor.js, vendor.js.map (vendor) 6.88 MB [initial] [rendered]
chunk {1040} 1040.js, 1040.js.map () 7.73 kB [rendered]
chunk {1041} 1041.js, 1041.js.map () 7.74 kB [rendered]
chunk {1042} 1042.js, 1042.js.map () 7.72 kB [rendered]
chunk {1043} 1043.js, 1043.js.map () 6.81 kB [rendered]
chunk {1044} 1044.js, 1044.js.map () 6.9 kB [rendered]
chunk {1045} 1045.js, 1045.js.map () 6.89 kB [rendered]
chunk {1046} 1046.js, 1046.js.map () 7.68 kB [rendered]
chunk {1047} 1047.js, 1047.js.map () 10.1 kB [rendered]
i [wdm]: Compiled successfully.
i [wdm]: Compiling...
```

Date: 2018-10-10T02:19:19.020Z - Hash: 70948eabe89d6b54d0dd - Time: 3390ms

1055 unchanged chunks

```
chunk {app-app-module} app-app-module.js, app-app-module.js.map (app-app-module) 223 kB [rendered]
chunk {main} main.js, main.js.map (main) 358 kB [initial] [rendered]
i [wdm]: Compiled successfully.
i [wdm]: Compiling...
```

Date: 2018-10-10T02:20:19.630Z - Hash: 98893dfc0c80f3596207 - Time: 3050ms

1056 unchanged chunks

```
chunk {app-app-module} app-app-module.js, app-app-module.js.map (app-app-module) 223 kB [rendered]
i [wdm]: Compiled successfully.
i [wdm]: Compiling...
```

Date: 2018-10-10T02:22:18.736Z - Hash: ebed57aba1cbe708c439 - Time: 2778ms

1056 unchanged chunks

```
chunk {app-app-module} app-app-module.js, app-app-module.js.map (app-app-module) 260 kB [rendered]
i [wdm]: Compiled successfully.
i [wdm]: Compiling...
```

Date: 2018-10-10T02:23:43.056Z - Hash: 50b883d9c37546682c2e - Time: 2487ms

1056 unchanged chunks

```
chunk {app-app-module} app-app-module.js, app-app-module.js.map (app-app-module) 261 kB [rendered]
i [wdm]: Compiled successfully.
```



File Edit Selection View Go Debug Terminal Help todos.component.ts - angular - Visual Studio Code

EXPLORER OPEN EDITORS GROUP 1 TS todos.component.ts X GROUP 2 todos.component.scss src\app\todo... M GROUP 3 _variables.scss src\shared U ANGULAR todos create-todo create-todo.component.html TS create-todo.component.ts edit-todo edit-todo.component.html TS edit-todo.component.ts todos.component.html todos.component.scss M TS todos.component.ts users create-user edit-user users.component.html TS users.component.ts OUTLINE

8
9 @Component({
10 templateUrl: './todos.component.html',
11 styleUrls: ['todos.component.scss'],
12 animations: [appModuleAnimation()],
13 })
14 export class ToDosComponent extends PagedListingComponentBase<ToDoDto> {
15 @ViewChild('createToDoModal')
16 createToDoModal: CreateToDoComponent;
17 @ViewChild('editToDoModal')
18 editToDoModal: EditToDoComponent;

todos.component.scss X ...
1 @import 'shared/_variables.scss';
2 .unknown {
3 color: \$unknown-color;
4 }
5 .completed {
6 color: \$completed-color;
7 }
8 .in-progress {
9 color: \$in-progress-color;
10 }
11 .not-started {
12 color: default;
13 }
14 }

_variables.scss X ...
1 \$unknown-color: red;
2 \$completed-color: green;
3 \$in-progress-color: yellow;
4

Local Styles

LESS or SASS

MyProject API v1

<http://localhost:21021/swagger/v1/swagger.json>

Swagger

[Logout](#)

Account

POST /api/services/app/Account/IsTenantAvailable

POST /api/services/app/Account/Register

Configuration

POST /api/services/app/Configuration/ChangeUiTheme 

Role

POST /api/services/app/Role/Create 

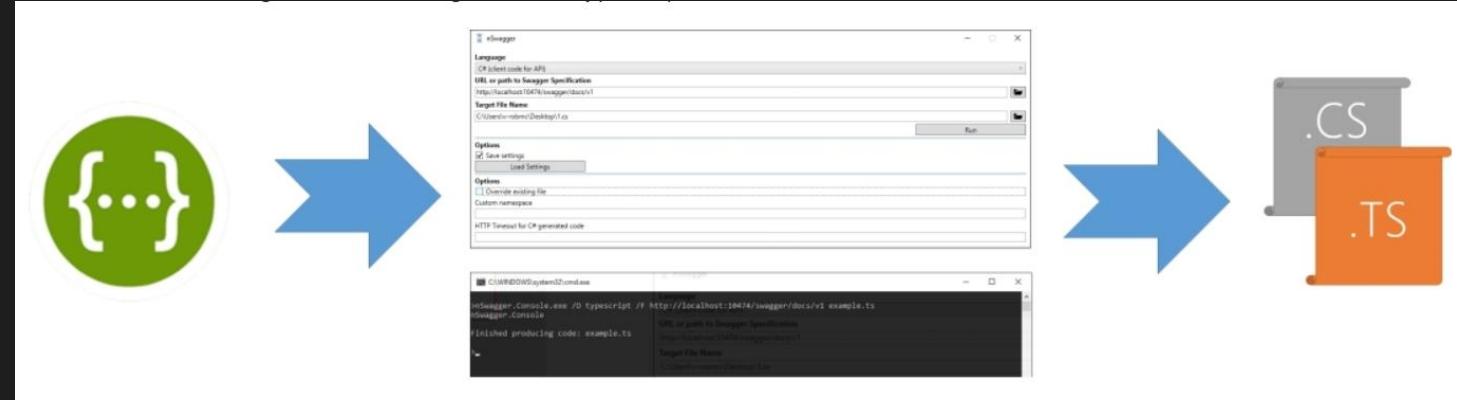


nSwag

```
active = false;
toDos: ToDoDto[] = []

constructor(injector: Injector) {
    super(injector);
}

protected list(request: IRequest): Observable<PagedResultDto<ToDoDto>> {
    return this.toDoService.getAll(request.skipCount, request.maxResultCount)
        .pipe(finalize(() => finishedCallback()))
        .subscribe((result: PagedResultDto<ToDoDto>) => {
            this.toDos = result.items;
            this.showPaging(result, pageNumber);
        });
}
```



French

German

Italian

Dutch

Portuguese

Turkish

Russian

Arabic

Japanese

Simplified Chinese

Localization

```
25      <tr>
26          <th>{{l('Title')}}</th>
27          <th>{{l('DueDate')}}</th>
28          <th>{{l('Status')}}</th>
29          <th>{{l('Actions')}}</th>
30      </tr>
31  </thead>
32  <tbody>
```

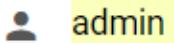
```
MyProject.xml ✎ X
1  <?xml version="1.0" encoding="utf-8" ?>
2  <localizationDictionary culture="en">
3      <texts>
4          <text name="Title" value="Title" />
5          <text name="DueDate" value="Due Date" />
6          <text name="Status" value="Status" />
7          <text name="ToDos" value="To Do's" />
8          <text name="HomePage" value="Home page" />
9          <text name="About" value="About" />
10         <text name="WellcomeMessage" value="Welcome to MyPro
11         <text name="FormIsNotValidMessage" value="Form is no
12         <text name="TenantNameCanNotBeEmpty" value="Tenant r
13         <text name="InvalidUserNameOrPassword" value="Invali
14         <text name="ThereIsNoTenantDefinedWithName{0}" value
15         <text name="Tenant IsNot Active" value="Tenant {0} is
16         <text name="User IsNot Active And Can Not Login" val
17         <text name="UserEmail IsNot Confirmed And Can Not Lo
18         <text name="UserLockedOutMessage" value="The user accou
19         <text name="PleaseEnterLoginInformation" value="Plea
```

```
MyProject-es.xml ✎ X
1  <!-- Localization for Spanish -->
2  <!-- Localized strings -->
3      <text name="Title" value="Título" />
4      <text name="DueDate" value="Fecha de vencimiento" />
5      <text name="Status" value="Estado" />
6      <text name="ToDos" value="Tareas pendientes" />
7      <text name="HomePage" value="Página principal" />
8      <text name="About" value="Acerca de" />
9      <text name="WellcomeMessage" value="Bienvenido a WMS!" />
10     <text name="FormIsNotValidMessage" value="El formulario no es válido." />
11     <text name="TenantNameCanNotBeEmpty" value="Nombre de la empresa no puede ser vacío." />
12     <text name="InvalidUserNameOrPassword" value="Nombre de usuario o contraseña invalidos." />
13     <text name="ThereIsNoTenantDefinedWithName{0}" value="No se ha definido una empresa con el nombre {0}." />
14     <text name="Tenant IsNot Active" value="La empresa {0} no está activa." />
15     <text name="User IsNot Active And Can Not Login" value="El usuario {0} no está activo y no puede iniciar sesión." />
16     <text name="PleaseEnterLoginInformation" value="Por favor, introduzca la información de inicio de sesión." />
17     <text name="UserName" value="Nombre de la empresa" />
18     <text name="EmailOrEmail" value="Nombre de usuario o correo electrónico" />
19     <text name="Password" value="Contraseña" />
20     <text name="RememberMe" value="Recuérdame" />
```

Multi-Tenancy

Current tenant: Default (Change)

Log in



admin

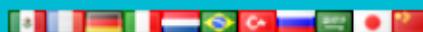


.....

Remember me

Log in

Register



© 2018 MyProject. Version 4.0.0.0 [20180910]

General

Request URL: http://localhost:21021/AbpUserConfiguration/GetAll

Request Method: GET

Status Code: 200 OK

Remote Address: [::1]:21021

Referrer Policy: no-referrer-when-downgrade

Response

```
showMenuItem(menuItem): boolean {
    if (menuItem.permissionName) {
        return this.permission.isGranted(menuItem.permissionName);
    }
    return true;
}
```

Vary: Or

X-Content-Type-Options: nosniff

X-Frame-Options: SAMEORIGIN

X-SourceFiles: =?UTF-8?B?QzpcZGV2XEFCUFxNeUNvbXBhbnkuTX1Qcm9qZWN0XGFzcG5ldC1jb3J1XHNyY1xNeUNvbXBhbnkuTX1Qcm9qZWN0L1d1Yi5Ib3

N0XEFlcFVzZXJDb25maWd1cmF0aW9uXEd1dEFsbA==?=

X-XSS-Protection: 1; mode=block

Request Headers

[view source](#)

.AspNetCore.Culture: null

Abp.TenantId: 1

Accept: application/json, text/javascript, */*; q=0.01

Accept-Encoding: gzip, deflate, br

Accept-Language: en-US,en;q=0.9

Authorization: Bearer eyJhbGciOiJIUzI1

L2NsYWltcy9uYW1laWR1bnRpZml1ciI6IjI

WRtaW4iLCJBc3BOZXQuSWR1bnRpdHkuU2V

FzLm1pY3Jvc29mdC5jb20vd3MvMjAwOC8wI

valW1bnRpdHkvY2xhaW1zL3R1bmFudElkIjoiMSisInN1YiI6IjIiLCJqdGkiOiI52mVjZjQ5YS1jYWQ4LTQzOWQtODY0OS1iMGFjNDE3NmViNDYiLCJpYXQi

OjE1MzkxNDUsIm5iZii6MTUzOTE0Njc0NSwiZXhwIjoxNTM5MjMzMTQ1LCJpc3MiOiJNeVByb2p1Y3QoIiLCJhdWQiOjIjNeVByb2p1Y3QifQ.L2Q9YQUFwn

Permissions

Bearer Auth

Default\admin
admin@defaulttenant.com

Home page

To Do's

Users

Roles

About

Multi Level Menu

Users

⋮

User name	Full name	Email address	Is active	Actions
admin	admin admin	admin@defaulttenant.com		
user1	user1 user1	user1@user1.com		
user10	user10 user10	user10@user10.com		
user2	user2 user2	user2@user2.com		
<h1>Pagination (& Sorting*)</h1>				
user6	user6 user6	user6@user6.com		
user7	user7 user7	user7@user7.com		
user8	user8 user8	user8@user8.com		

Datepicker

Form Controls

Autocomplete

Checkbox

Datepicker

Form field

Input

Radio button

Select

Slider

Slide toggle

Navigation

Menu

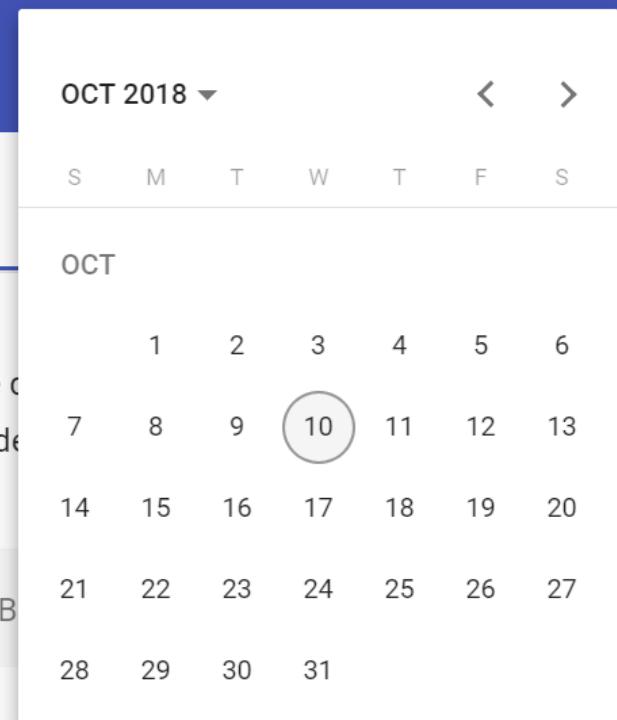
Sidenav

Toolbar

Layout

Card

Divider



EXAMPLES

The datepicker can be triggered through text input, or by choosing a date from the calendar. It is also possible to trigger both together.

Connecting a datepicker to an input

A datepicker is composed of a text input and a calendar pop-up, connected via the `matDatepicker` property on the

Contents

Connecting a datepicker to an input

Setting the date view

Watching changes of the date and month

Setting the date colors

Date validation

Input and output

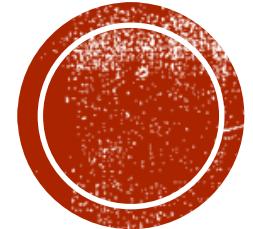
Disabling past dates in a datepicker

Touch UI mode

Manually opening the calendar

Internationalization

<https://material.angular.io/>*



BACK-END FEATURES



DDD Base Classes

```
public class ProductsAppService : AsyncCrudAppService<Product, ProductDto> {
    private readonly IRepository<Product, int> _repository;
    public ProductsAppService(IRepository<Product, int> repository) : base(repository) {
        _repository = repository;
    }
    [AbpAuthorize(PermissionNames.Pages_Products)]
    public async Task<ProductDto> IncrementQuantity(int productId) {
        Logger.Info($"Updating product {productId}");
        var product = await _repository.FirstOrDefaultAsync(i => i.Id == productId);
        if (product == null) {
            throw new UserFriendlyException(L("ProductNotFoundMessage"));
        }
        product.Quantity++;
        return ObjectMapper.Map<ProductDto>(product);
    }
}
```

Dependency
Injection

Unit of Work
Transaction &
Connection
Management

Generic Repositories

Declarative Authorization

Auto-Validation

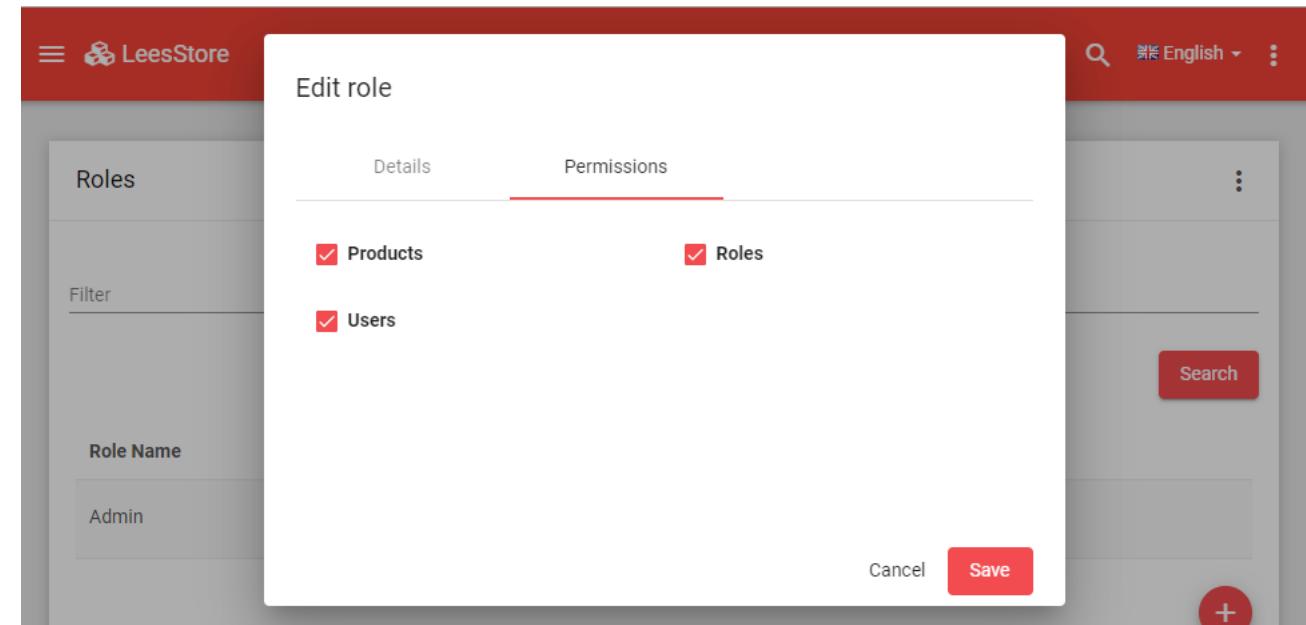
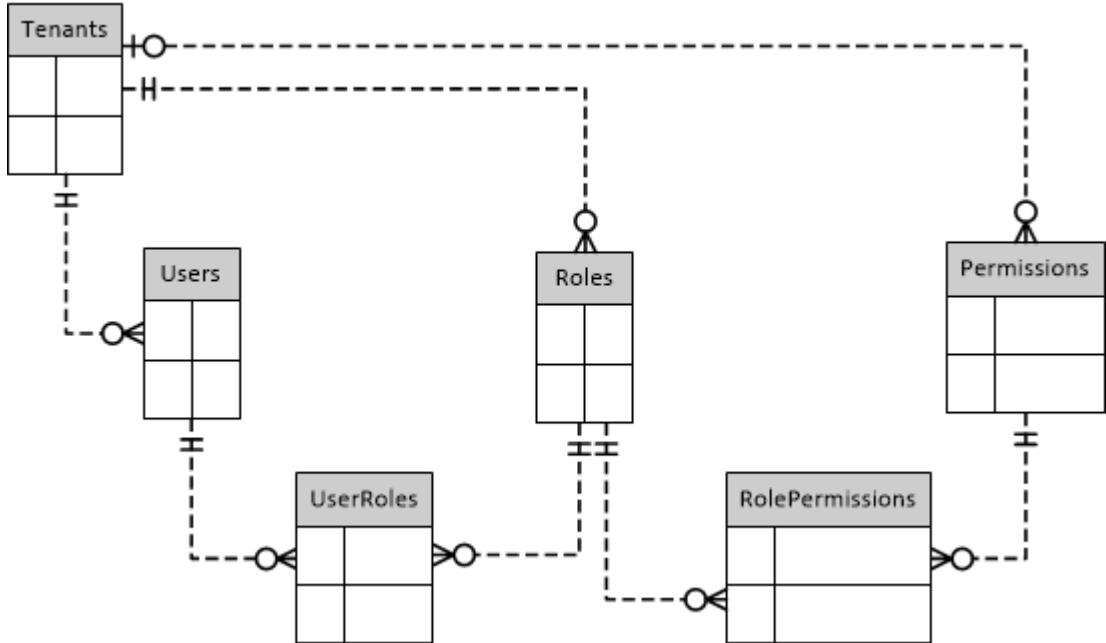
Auto Audit Logging

Logging

Localization

Exception Management

Object-to-Object Mapping



PERMISSIONS

```
[AbpAuthorize(PermissionNames.Pages_Products)]
public class ProductAppService : AsyncCrudAppService {
```

```
public class LeesStoreAuthorizationProvider : AuthorizationProvider {
    public override void SetPermissions(IPermissionDefinitionContext context) {
        context.CreatePermission(PermissionNames.Pages_Users, L("Users"));
        context.CreatePermission(PermissionNames.Pages_Products, L("Products"),
            multiTenancySides: MultiTenancySides.Tenant);
```



Custom Validation

```
10 public class ToDo : Entity<int>, IFullAudited<User>, ICustomValidate, ISoftDelete
11 {
12     [Required]
13     [StringLength(1000)]
14     public string Title { get; set; }
15
16     public DateTime? DueDate { get; set; }
17
18     public StatusType Status { get; set; }
19
20     public DateTime CreationTime { get; set; }
21     public long? CreatorUserId { get; set; }
22     public DateTime? LastModificationTime { get; set; }
23     public long? LastModifierUserId { get; set; }
24     public User CreatorUser { get; set; }
25     public User LastModifierUser { get; set; }
26     public bool IsDeleted { get; set; }
27     public DateTime? DeletionTime { get; set; }
28     public long? DeleterUserId { get; set; }
29     public User DeleterUser { get; set; }
30
31     public void AddValidationErrors(CustomValidationContext context)
32     {
33         if (DueDate < DateTime.Now)
34         {
35             context.Results.Add(new ValidationResult("Due Date can't be before today"));
36         }
37     }
38 }
```

Auditing

```
10 public class ToDo : Entity<int>, IFullAudited<User>, ICustomValidate, ISoftDelete
11 {
12     [Required]
13     [StringLength(1000)]
14     public string Title { get; set; }
15
16     public DateTime? DueDate { get; set; }
17
18     public StatusType Status { get; set; }
19
20     public DateTime CreationTime { get; set; }
21     public long? CreatorUserId { get; set; }
22     public DateTime? LastModificationTime { get; set; }
23     public long? LastModifierUserId { get; set; }
24     public User CreatorUser { get; set; }
25     public User LastModifierUser { get; set; }
26     public bool IsDeleted { get; set; }
27     public DateTime? DeletionTime { get; set; }
28     public long? DeleterUserId { get; set; }
29     public User DeleterUser { get; set; }
30
31     public void AddValidationErrors(CustomValidationContext context)
32     {
33         if (DueDate < DateTime.Now)
34         {
35             context.Results.Add(new ValidationResult("Due Date can't be before today"));
36         }
37     }
38 }
```

Soft Delete

```
10 public class ToDo : Entity<int>, IFullAudited<User>, ICustomValidate, ISoftDelete
11 {
12     [Required]
13     [StringLength(1000)]
14     public string Title { get; set; }
15
16     public DateTime? DueDate { get; set; }
17
18     public StatusType Status { get; set; }
19
20     public DateTime CreationTime { get; set; }
21     public long? CreatorUserId { get; set; }
22     public DateTime? LastModificationTime { get; set; }
23     public long? LastModifierUserId { get; set; }
24     public User CreatorUser { get; set; }
25     public User LastModifierUser { get; set; }
26     public bool IsDeleted { get; set; }
27     public DateTime? DeletionTime { get; set; }
28     public long? DeleterUserId { get; set; }
29     public User DeleterUser { get; set; }
30
31     public void AddValidationErrors(CustomValidationContext context)
32     {
33         if (DueDate < DateTime.Now)
34         {
35             context.Results.Add(new ValidationResult("Due Date can't be before today"));
36         }
37     }
38 }
```

Logs.txt (520.9 KB) - BareTail

File Edit View Preferences Help

Open Highlighting Follow Tail ANSI C:\dev\ABP\MyCompany.MyProject\aspnet-core\src\MyCompany.MyProject.Web.Host\App_Data\Logs\Logs.txt (520.9 KB)

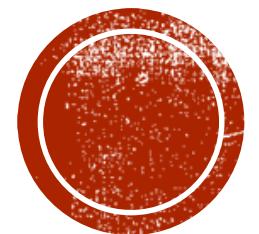
Logs.txt Logs.txt Logs.txt

```
INFO 2018-10-10 00:45:45,423 [154] ore.Mvc.Internal.ControllerActionInvoker - Executing action method MyCompany.MyProject.Controllers.TokenAuthController.Authenticate (MyCompany.MyProject.Web.Core) with arguments (MyCompany.MyProject.Models.TokenAuth AuthenticateMod)
INFO 2018-10-10 00:45:45,848 [157] ore.Mvc.Internal.ControllerActionInvoker - Executed action method MyCompany.MyProject.Controllers.TokenAuthController.Authenticate (MyCompany.MyProject.Web.Core), returned result Microsoft.AspNetCore.Mvc.ObjectResult in 424.2429ms.
INFO 2018-10-10 00:45:45,864 [157] Mvc.Infrastructure.ObjectResultExecutor - Executing ObjectResult, writing value of type 'Abp.Web.ModelsAjaxResponse'.
INFO 2018
INFO 2018 C:\dev\ABP\MyCompany.MyProject\aspnet-core\src\MyCompany.MyProject.Web.Host\App_Data\Logs
INFO 2018-10-10 00:45:47,940 [157] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO 2018-10-10 00:45:47,946 [157] soft.AspNetCore.Hosting.InternalWebHost - Request finished in 0.4959ms 204
INFO 2018-10-10 00:45:47,972 [153] soft.AspNetCore.Hosting.InternalWebHost - Request starting HTTP/1.1 GET http://localhost:21021/AbpUserConfiguration/GetAll application/json
INFO 2018-10-10 00:45:47,973 [153] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO 2018-10-10 00:45:47,974 [153] authentication.JwtBearerHandler - Successfully validated the token.
WARN 2018-10-10 00:45:47,975 [153] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported cultures 'null'.
WARN 2018-10-10 00:45:47,975 [153] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported UI Cultures 'null'.
WARN 2018-10-10 00:45:47,975 [153] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported cultures 'null'.
WARN 2018-10-10 00:45:47,975 [153] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported UI Cultures 'null'.
WARN 2018-10-10 00:45:47,975 [153] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported cultures 'null'.
WARN 2018-10-10 00:45:47,975 [153] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported UI Cultures 'null'.
INFO 2018-10-10 00:45:47,975 [153] authentication.JwtBearerHandler - Successfully validated the token.
INFO 2018-10-10 00:45:47,975 [153] .AspNetCore.SignalR.HubConnectionContext - Completed connection handshake. Using HubProtocol 'json'.
DEBUG 2018-10-10 00:45:51,290 [153] Abp.AspNetCore.SignalR.Hubs.AbpCommonHub - A client is connected: {"ConnectionId": "EwYIG-XqOpRNJDzN3-z4Q", "IpAddress": "::1", "TenantId": 1, "UserId": 2, "ConnectTime": "2018-10-10T00:45:51.2829769-04:00", "Properties": {}}
DEBUG 2018-10-10 00:45:51,291 [153] Abp.AspNetCore.SignalR.Hubs.AbpCommonHub - A client is registered: EwYIG-XqOpRNJDzN3-z4Q
```

Logging



The screenshot shows a terminal window displaying log entries from a .NET Core application using the log4net library. The logs are color-coded by source and level. A large watermark of the 'log4net' logo is overlaid on the right side of the screen.



DEPLOYMENT FEATURES





EXPLORER

OPEN EDITORS

! docker-compose.dev.yml

NG

.env

! docker-compose.base.yml

! docker-compose.dev.yml

! docker-compose.local.yml

dockercfg-compose.yml

> down.ps1

> up.ps1

! docker-compose.dev.yml ×



```
1  version: '3.7'
2
3  # The docker-compose.dev file uses the docker service name to connect to components on the same interface
4  # The BTGSA_EXTERNAL_DNS_NAME_OR_IP environment variable is taken, by default, from the ".env" file
5  #       BTGSA_EXTERNAL_DNS_NAME_OR_IP=localhost
6
7  #      ars at runtime will always override those defined inside the Dockerfile
8  #       ed (instead localhost and the 10.0.75.1 IP)
9  #       machines/devices using the same WiFi, for instance.
10
11 #       following CLI command:
12
13 services:
14   btg.db:
15     environment:
16       - SA_PASSWORD=${BTGSA_DATABASE_SA_USER_PASSWORD}
17       - ACCEPT_EULA=Y
18       - MSSQL_PID=Developer
19       - MSSQL_DB=${BTGSA_DATABASE_NAME}
20       - MSSQL_USER=${BTGSA_DATABASE_USER_ACCOUNT}
21       - MSSQL_PASSWORD=${BTGSA_DATABASE_USER_PASSWORD}
22     ports:
23       - "1433:1433"      # Important: Remove external port in production environment
24     # volumes:
25     #   https://github.com/Microsoft/mssql-docker/issues/12
26     #   https://adilsoncarvalho.com/using-mssql-on-linux-using-docker-for-mac-a5d4ac81e57f
27     #   - "./Db-Logs:/usr/config/"
28
29 btg.algo:
```



OUTLINE

MyCompany.MyProject (Running) - Microsoft Visual Studio

File Edit View NCrunch Project Build Debug Team Tools Test ReSharper Analyze Window Help

Any CPU MyCompany.MyProject.Migrator Continue Application Insights

Program.cs log4net.config ToDo.cs ToDoAppService.cs IFullAudited1.cs

MyCompany.MyProject.Migrator

```
1 using System;
2 using Castle.Facilities.Logging;
3 using Abp;
4 using Abp.Castle.Logging.Log4Net;
5 using Abp.Collections.Extensions;
6 using Abp.Dependency;
7
8 namespace MyCompany.MyProject.Migrator
9 {
10     public class Program
11     {
12         private static bool _quietMode;
13
14         public static void Main(string[] args)
15         {
16             ParseArgs(args);
17
18             using (var bootstrapper
19             {
20                 bootstrapper.IocManager.IocContainer
21                     .AddFacility<LoggingFacility>()
22                         f => f.UseAbpLog4Net()
23             );
24
25             bootstrapper.Initialize();
26
27             using (var migrateExecuter = bootstrapper.IocManager.ResolveAsDisposable<MultiTenantMigrateExecuter>())
28             {
29                 var migrationSucceeded = migrateExecuter.Object.Run(_quietMode);
30
31                 if (_quietMode)
32                     return;
33             }
34         }
35     }
36 }
```

C:\Program Files\dotnet\dotnet.exe

2018-10-10 01:25:35 | Host database: server=localhost;database=MyProjectDb;trusted_connection=True
2018-10-10 01:25:35 | Continue to migration for this host database and all tenants? (Y/N):

Migrator

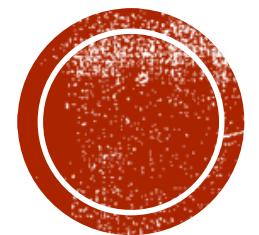
Solution Explorer

Search Solution Explorer (Ctrl+Shift+F)

Solution 'MyCompany.MyProject' (7 projects)

- src
 - MyCompany.MyProject.Application
 - MyCompany.MyProject.Core
 - MyCompany.MyProject.EntityFrameworkCore
 - MyCompany.MyProject.Migrator
 - Dependencies
 - Properties
 - DependencyInjection
 - appsettings.json
 - Log.cs
 - log4net.config
 - MultiTenantMigrateExecuter.cs
 - MyProjectMigratorModule.cs
 - Program.cs
 - MyCompany.MyProject.Web.Core
 - MyCompany.MyProject.Web.Host- test
- MyCompany.MyProject.Tests

Call Stack Solution Explorer



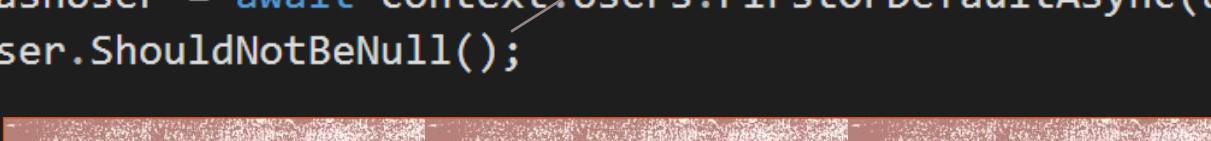
TESTING FEATURES



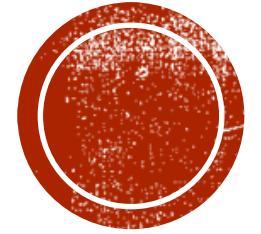
```
29  
30 [Fact] → XUnit  
31 public async Task CreateUser_Test()  
32 {  
33     // Act  
34     await _userAppService.Create(  
35         new CreateUserDto  
36         {  
37             EmailAddress = "john@volosoft.com",  
38             IsActive = true,  
39             Name = "John",  
40             Surname = "Nash",  
41             Password = "123qwe",  
42             UserName = "john.nash"  
43         });  
44  
45     await UsingDbContextAsync(async context =>  
46     {  
47         var johnNashUser = await context.Users.FirstOrDefaultAsync(u => u.UserName  
48         johnNashUser.ShouldNotBeNull();  
49     });  
50 }  
51 }  
52 }  
53 }
```

In-Memory DB

shouldly







HOW TO'S



HOW TO ADD BACK-END CRUD

1. Add Entity

```
public class Product : Entity<int> { ... }
```

2. Add To DbContext

```
public DbSet<Product> Products { get; set; }
```

3. Add Migration

```
Add-Migration "Add-Products"
```

4. Update Database

```
Update-Database
```

5. Add a DTO

```
[AutoMapFrom(typeof(Product))]  
public class ProductDto : EntityDto<int> { ... }
```

6. Register a Permission

```
context.CreatePermission(PermissionNames.Pages_Products, L("Products"));
```

7. Add an AppService

```
[AbpAuthorize(PermissionNames.Pages_Products)]  
public class ProductsAppService : AsyncCrudAppService<Product,  
    ProductDto, int, PagedAndSortedResultDto, ProductDto>
```

8. Run Your App, See Swagger Update, Rejoice



HOW TO ADD FRONT-END CRUD



1. Update nSwagger

angular\nswag\refresh.bat

2. Register Service Proxy

src/shared/service-proxies/service-proxy.module.ts
`ApiServiceProxies.ProductsServiceProxy,`

3. Update Left-Hand Nav

src\app\layout\sidebar-nav.component.ts
`new MenuItem(this.l('Products'), 'Pages.Users',
'local_grocery_store', '/app/products'),`

4. Update Route

src\app\app-routing.module.ts

5. Duplicate Tenant folder Find/Replace

Replace “Tenant” with “Product” and “tenant” with “product”
C:\dev\LeesStore\angular\src\app\products

6. Register new components in app.module.ts

7. Fix Fields, Tidy Up UI, Rejoice





BRINGING IT ON HOME

THINGS YOU WILL HATE DISLIKE

- Front-End (Angular)
 - Inconsistencies in spacing (sometimes 2, sometimes 4)
 - Underscores in some typescript variables (but not others)
 - A large global style.css
 - Poorly enforced linting
 - No front-end tests
 - Refresh tokens and expirations not implemented
- Back-End
 - Failed login attempts generate 500 responses (and caught exceptions)
 - Castle Windsor's 1st to register wins for Dependency Injection
 - Automatic DI registration (?)
 - Framework Lock In



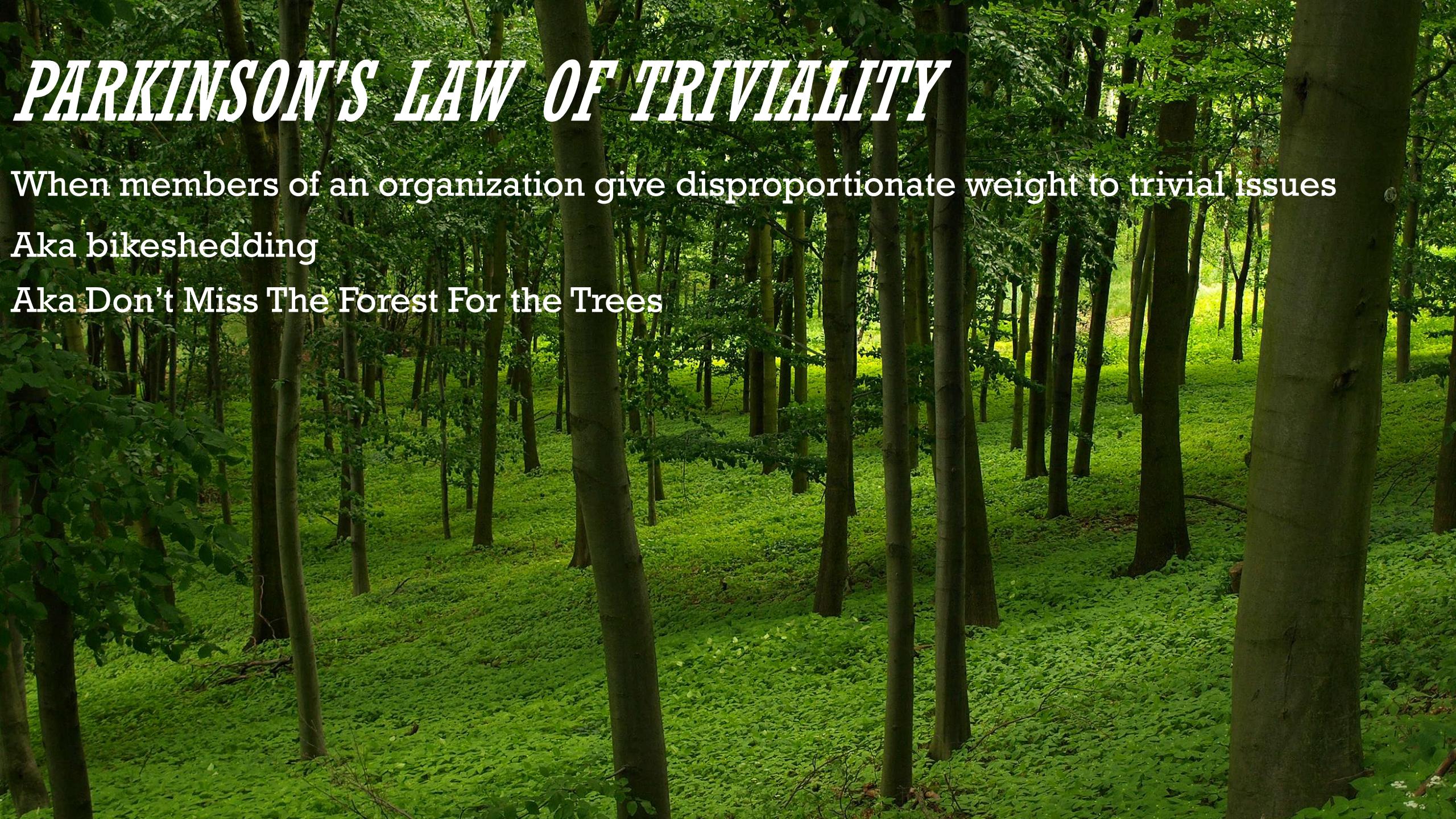


PARKINSON'S LAW OF TRIVIALITY

When members of an organization give disproportionate weight to trivial issues

Aka bikeshedding

Aka Don't Miss The Forest For the Trees



SOME FEATURES

Client Side

- CLI-based
- Localization
- Nswagger proxy generation
- Pagination / Sorting
- Login, Authentication, Authorization
- Multi Tenancy

Testing

- In-Memory DB Testing

Deployment

- Docker
- Database Migrator

Server Side

- Authorization ([AbpAuthorize(Pages_Users)])
- Server-Side Validation
 - DataAnnotations, CustomValidator, UserFriendlyException
- AutoMapper (MyMapProfile : Profile)
- Modules
- Dependency Injection
 - Castle Windsor, down side: 1st to register wins
- Auditing (IFullAudited)
- Soft Delete
- Repository Pattern
- Transactions
- Logging / BareTail
 - Downside: it owns TRACE, and DEBUG





ASP.NET Boilerplate

These Slides:

<https://bit.ly/2LQo9dB>

This Video:

<https://youtu.be/xmHTYF5RvMs>

Lee Richardson

[https://techbash.com/
techbash2019eval](https://techbash.com/techbash2019eval)



Buy A Siren:
<https://sirenofshame.com>



Work From Home:
<https://infernored.com>

Let's Connect:



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 youtube.com/leerichardson200