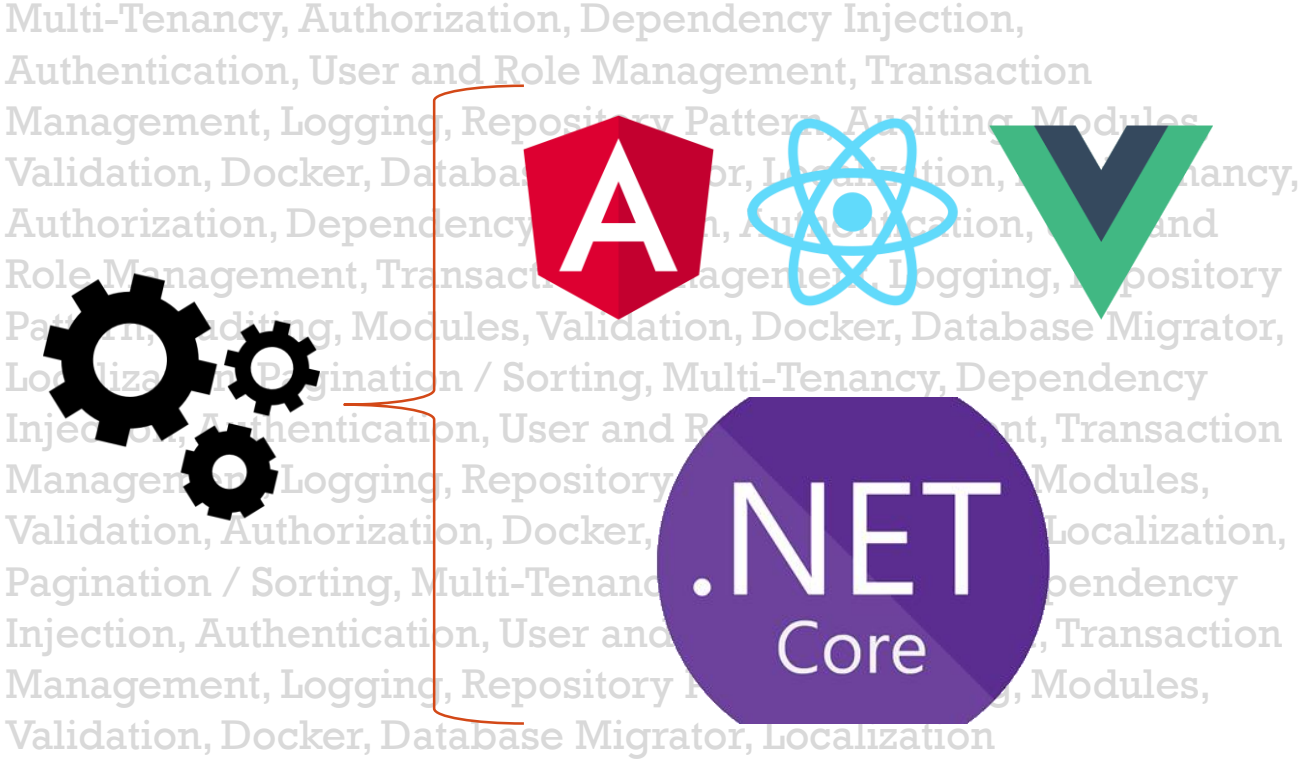
ASP.NET BOILERPLATE

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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Code | Issues 159 | Pull requests 22 | 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

5,768 commits | 13 branches | 187 releases | 133 contributors | MIT

Branch: dev | New pull request | Create new file | Upload files | Find File | Clone or download

ismcagdas Merge pull request #4532 from krugerm/app-hangs-sync-over-async ... Latest commit c0604b9 13 days ago

.github	Standardize GitHub	2 years ago
doc	Merge pull request #4722 from ryancyq/abp-cache-options	19 days ago
nupkg	#3476 added Abp.EntityFrameworkCore.EFPlus to pack.ps1	7 months ago
src	removed empty extension classes and commented methods	13 days ago
test	added new parameters to sync methods of INotificationStore	14 days ago
tools	Updated nuget.exe to 4.4.1.	2 years ago
.gitattributes	gitattributes file	6 years ago
.gitignore	Added enum test	11 months ago

https://github.com/aspnetboilerplate/aspnetboilerplate/pulls

Users

User name	Full name	Email address	Is active	Actions
admin	admin admin	admin@defaulttenant.com	✓	≡

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Initech Onboarding Dashboard

07/01/18 - 08/01/18; Approved

investigator
investigator@initech.com

- Home page
- Eligibility Checks
- Map
- Reports +
- Admin −
  - Users
  - Vendors
  - Vendor Response Fields
- Blacklist Admin
- About

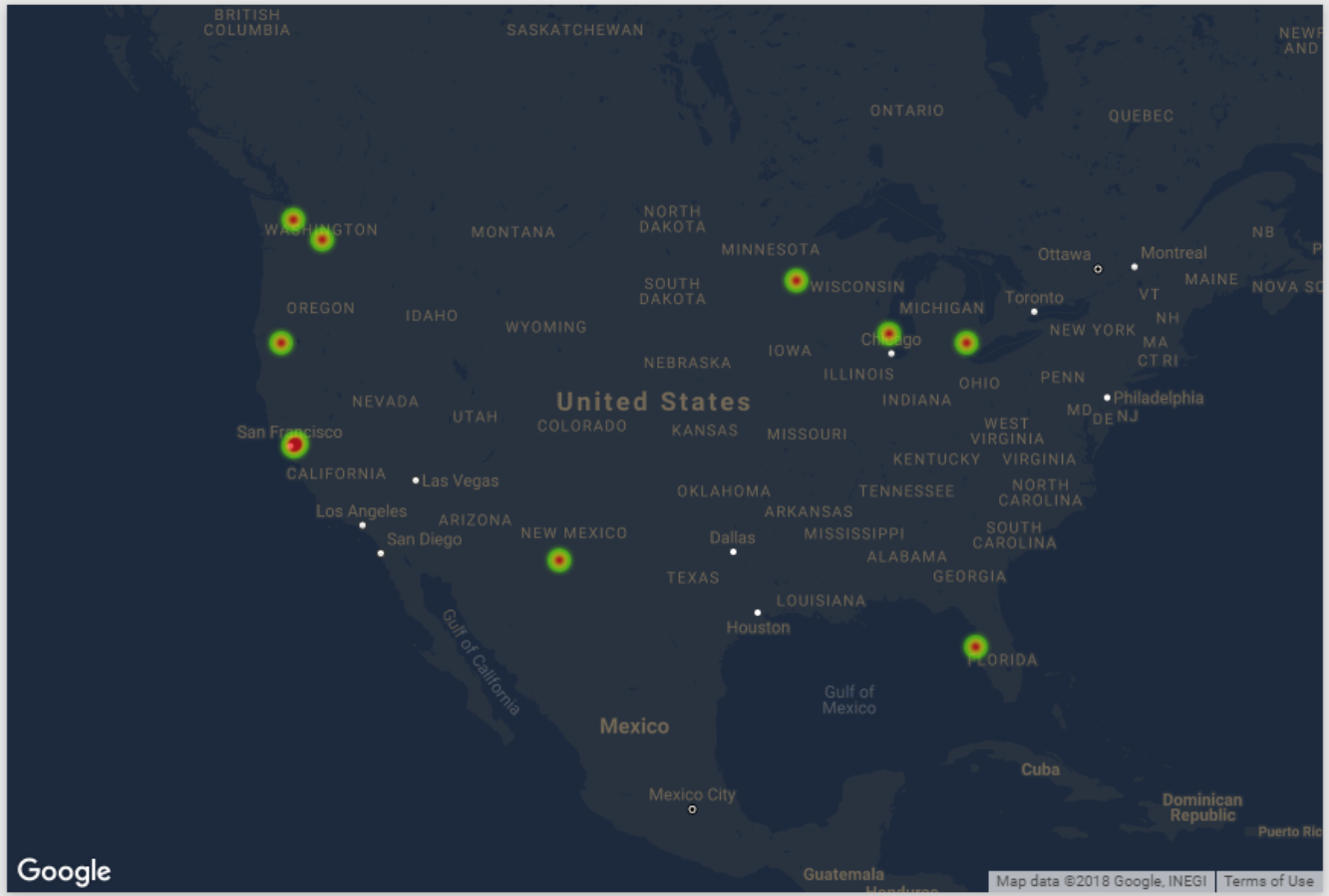
© 2018 OnboardingDashboard
Version 0.1.0.0 [20182010]

TOTAL APPLICANTS 11

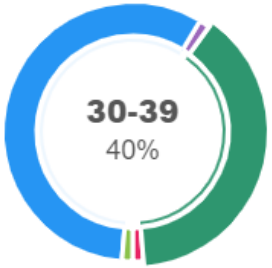
IN-STORE APPLICANTS 5

ONLINE APPLICANTS 5

APPROVED APPLICANTS 90.9 %



AGE BREAKDOWN



- 18-29
- 30-39
- 40-49
- 60-79
- 80+

REGION BREAKDOWN

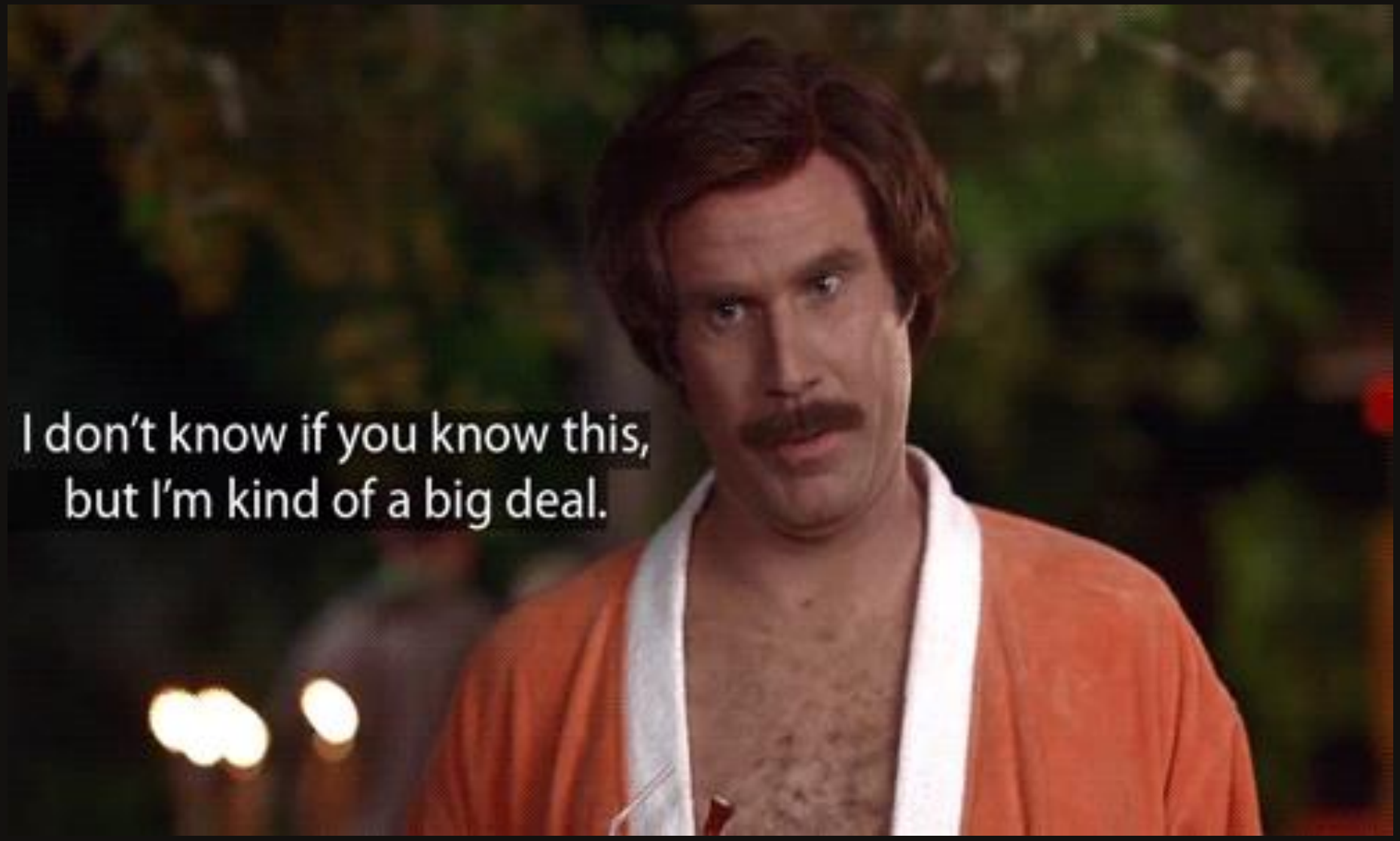
New England	0	East South Central	0
Mid-Atlantic	2	West South Central	0
East North Central	0	Mountain	0
West North Central	0	Pacific	1
South Atlantic	7		

APPLICANTS AGE 65+ 6

OUTSIDE USA 0

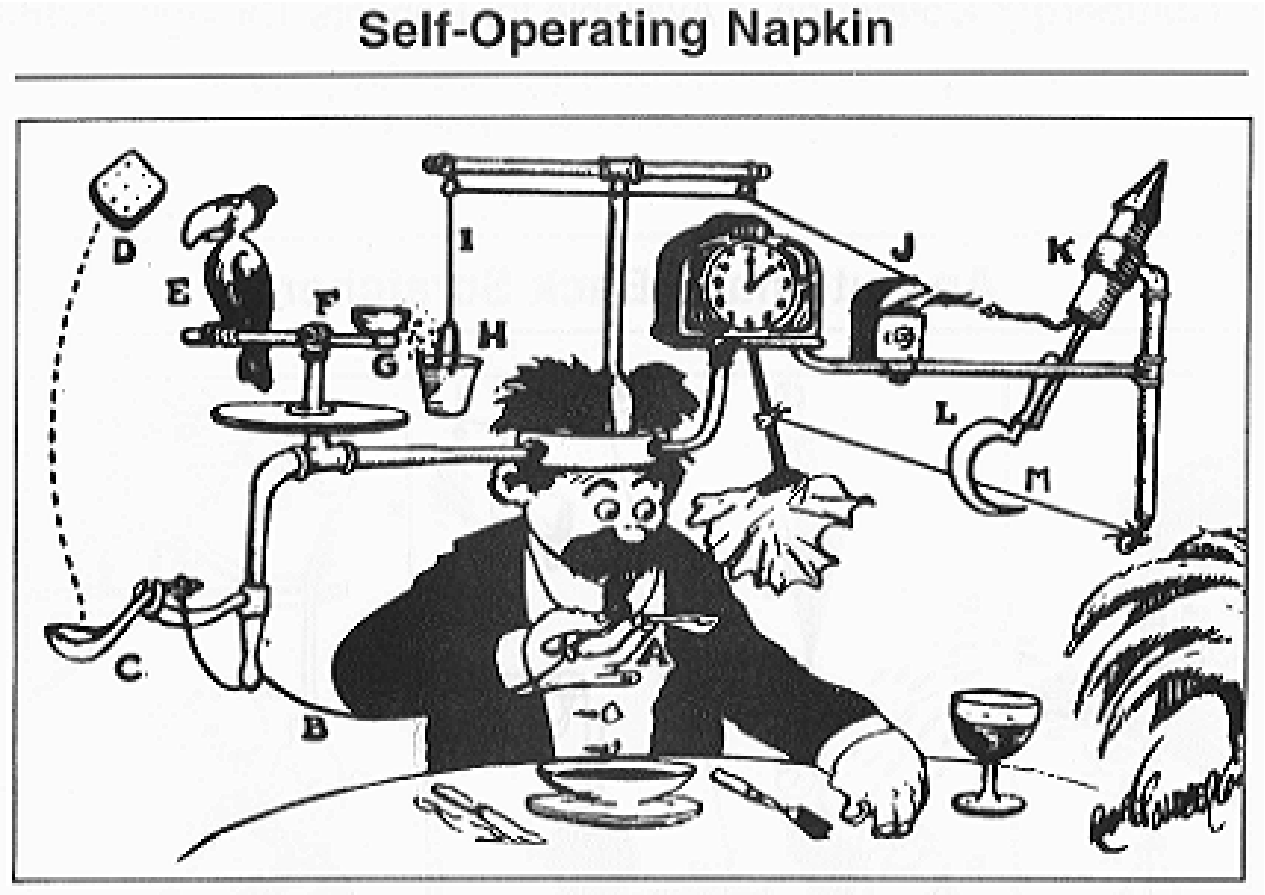
BLACKLISTED 3

META SCORE 900-999 1


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



Startup Templates

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

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

ANGULAR

Single Page Web Application

Vue.js

Single Page Web Application

React

Multi Page Web Application

Web application with server rendered HTML; ASP.NET MVC & jQuery.

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!)

ASP.NETZERO

English

EXPLAINERDEMO\ADMIN

- Dashboard
- Administration
  - Organization Units
  - Roles
  - Users
  - Languages
  - Audit logs
  - Subscription
  - Visual Settings
  - Settings
- Demo UI Components

Dashboard

statistics and reports

Total Profit
All Customs Value
$ 8393
Change 76%

New Feedbacks
Customer Review
4444
Change 85%

New Orders
Fresh Order Amount
402
Change 57%

1 New notifications

Set all as read | Settings

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

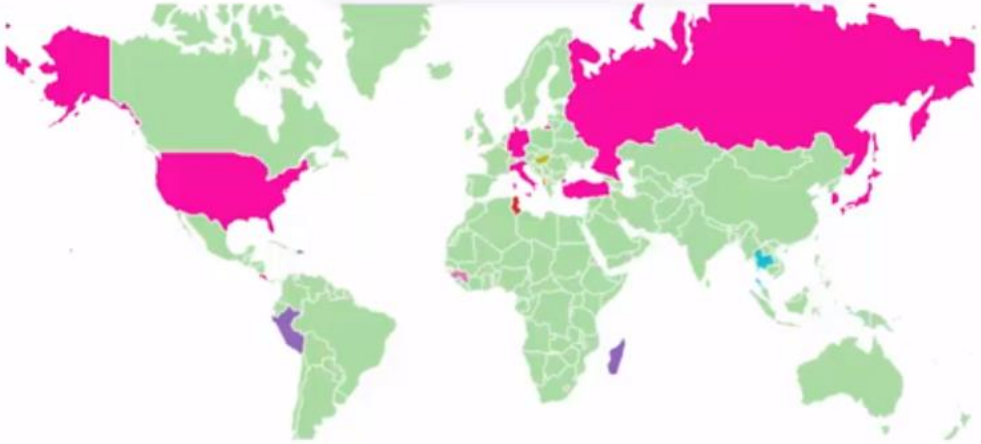
See all notifications

Sales Summary

Daily | Weekly | Monthly

Total Sales	Revenue	Expenses	Growth
26681 $	5277 $	6999 $	7621 $

Regional Stats



General Stats

Reload

Daily Sales

https://aspnetzero.com/Documents/Abp-Template-vs-AspNet-Zero

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

RECOMMENDED

$1,499

REGULAR LICENSE

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

$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]

abp

FEATURES GET STARTED DOCUMENTS COMMUNITY BLOG LOGIN

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*

Fork me on GitHub

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.

FRONT-END FEATURES

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL 1: node

```
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.
```

Live Reloading

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

EXPLORER

OPEN EDITORS
- GROUP 1
  - TS todos.component.ts src\app\todos
- GROUP 2
  - todos.component.scss src\app\to... 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

TS todos.component.ts

```
@Component({
    templateUrl: './todos.component.html',
    styleUrls: [ 'todos.component.scss' ],
    animations: [appModuleAnimation()],
})
export class ToDosComponent extends PagedListingComponentBase<ToDoDto> {
    @ViewChild('createToDoModal')
    createToDoModal: CreateToDoComponent;
    @ViewChild('editToDoModal')
    editToDoModal: EditToDoComponent;

```

todos.component.scss

```
@import 'shared/_variables.scss';

.unknown {
    color: $unknown-color;
}
.completed {
    color: $completed-color;
}
.in-progress {
    color: $in-progress-color;
}
.not-started {
    color: default;
}
```

_variables.scss

```
$unknown-color: red;
$completed-color: green;
$in-progress-color: yellow;

```

Local Styles

LESS or SASS

swagger

Select a spec MyProject API V1

Swagger

MyProject API v1

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

Logout

Account

POST /api/services/app/Account/IsTenantAvailable

POST /api/services/app/Account/Register

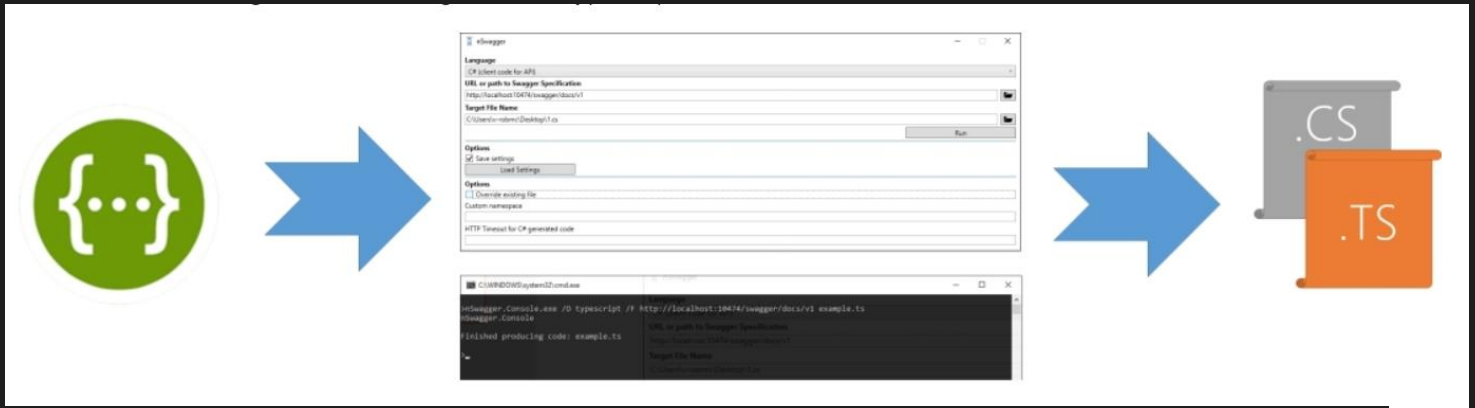
Configuration

POST /api/services/app/Configuration/ChangeUiTheme

Role

POST /api/services/app/Role/Create

nSwag




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

constructor(injector:
    super(injector);
}

protected list(reques
    this.toDoService.getAll(request.skipCount, request.maxResultCount)
        .pipe(finalize(() => finishedCallback()))
        .subscribe((result: PagedResultDtoOfToDoDto) => {
            this.toDos = result.items;
            this.showPaging(result, pageNumber);
        });
}
```

```
(method) ToDoServiceProxy.getAll(skipCount: number, maxResultCo
unt: number): Observable<PagedResultDtoOfToDoDto>
```

@param `skipCount` — (optional)

@param `maxResultCount` — (optional)

@return — Success

Localization

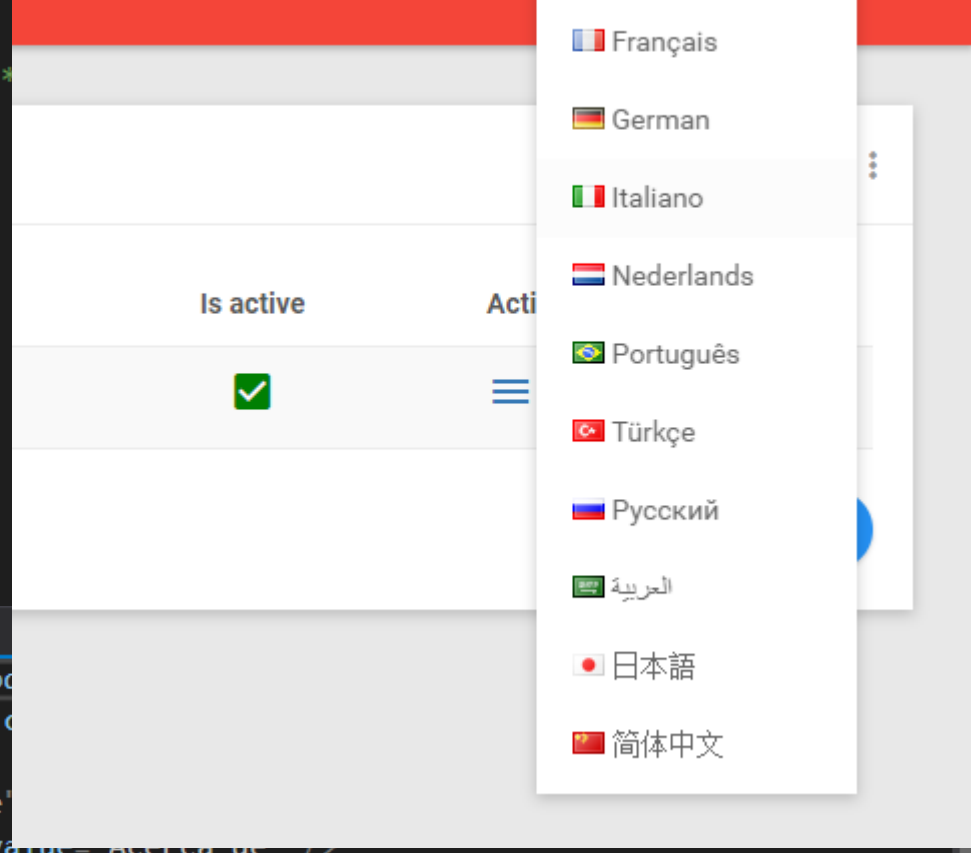
```
25                  <tr>
26                      <th>{{l('Title')}}</th>
27                      <th>{{l('DueDate')}}</th>
28                      <th>{{l('Status')}}</th>
29                      <th>{{l('Actions')}}</th>
30                  </tr>
31              </thead>
32              <tbody>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

MyProject.xml

```
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="TenantIsNotActive" value="Tenant {0} is
16     <text name="UserIsNotActiveAndCanNotLogin" value="Us
17     <text name="UserEmailIsNotConfirmedAndCanNotLogin">Y
18     <text name="UserLockedOutMessage">The user account h
19     <text name="PleaseEnterLoginInformation" value="Plea
```

MyProject-es.xml

```
1  ncod
2  ry c
3
4  age"
5  " value="Acerca de" />
6  omeMessage" value="Bienvenido a WMS!" />
7
8  sNotValidMessage" value="Formulario no es válido. Por fav
9  :NameCanNotBeEmpty" value="Nombre de la empresa no puede
10
11 idUserNameOrPassword" value="Usuario o contraseña invalid
12 [sNoTenantDefinedWithName{0}" value="No hay empresa defin
13 :IsNotActive" value="La empresa {0} no está activa." />
14 sNotActiveAndCanNotLogin" value="El usuario {0} no está a
15 eEnterLoginInformation" value="Por favor, introduzca la i
16 :yName" value="Nombre de la empresa" />
17 ameOrEmail" value="Nombre de usuario o correo electrónico
18 ord" value="Contraseña" />
19 erMe" value="Recuérdame" />
```



Multi-Tenancy

Current tenant: **Default** (Change)

Log in

admin

••••••

Remember me

Log in

Register

© 2018 MyProject. **Version** 4.0.0.0 [20180910]

× Headers Preview Response Timing

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;
}
```

Permissions

Access-C

Access-C

Content-

Date: We

Server:

Transfer

Vary: Or

X-Content-Type-Options: nosniff

X-Frame-Options: SAMEORIGIN

X-SourceFiles: =?UTF-8?B?QzpcZGV2XEFCUFxNeUNvbXBhbnkuTXlQcm9qZWN0XGFzcG5ldC1jb3J1XHNyY1xNeUNvbXBhbnkuTXlQcm9qZWN0LldlYi5Ib3
N0XEFicFVzZXJDb25maWd1cmF0aW9uXEdldEFsbA==?=

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 eyJhbGciOiJIUz aXR5
L2NsYW1tcy9uYW1laWR1bnRpZml1ciI6Ij joiY
WRtaW4iLCJBc3BOZXQuSWR1bnRpdHkuU2V nlbW
FzLm1pY3Jvc29mdC5jb20vd3MvMjAwOC8w jb20
vaWR1bnRpdHkvY2xhaW1zL3R1bmFudE1kIjoiMSIsInN1YiI6IjIiLCJqdGkiOiI5ZmVjZjQ5YS1jYWQ4LTQzOWQtODY0OS1iMGFjNDE3NmViNDYiLCJpYXQi
OjE1MzkxNDY3NDUsIm5iZiI6MTUzOTE0Njc0NSwiZXhwIjoxNTM5MjMzMTQ1LCJpc3MiOiJNeVByb2plY3QiLCJhdWQiOiJNeVByb2plY3QifQ.L2Q9YQUFwn

Bearer Auth

MyProject

English

Default\admin
admin@defaulttenant.com

- Home page
- To Do's
- Users
- Roles
- About
- Multi Level Menu

© 2018 MyProject.
Version 4.0.0.0 [20180910]

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	✓	≡
user6	user6 user6	user6@user6.com	✓	≡
user7	user7 user7	user7@user7.com	✓	≡
user8	user8 user8	user8@user8.com	✓	≡

Pagination (& Sorting*)

« Previous 1 2 Next »

+

Material Components CDK Guides 6.4.7 GitHub

Datepicker

OCT 2018

S	M	T	W	T	F	S
OCT						
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Form Controls
- Autocomplete
- Checkbox
- Datepicker
- Form field
- Input
- Radio button
- Select
- Slider
- Slide toggle

Navigation
- Menu
- Sidenav
- Toolbar

Layout
- Card
- Divider

EXAMPLES

The d ... er through text input, or by choosing a date from the calendar. It is made ... that work together.

B

Choose a date

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 input
- Setting the view
  - Watching changes and mont
- Setting the
- Changing th colors
- Date validat
- Input and ch
- Disabling pa datepicker
- Touch UI m
- Manually op the calenda
- Internationa

https://material.angular.io/*

BACK-END FEATURES

DDD Base Classes

Generic Repositories

```
public class TaskAppService : ApplicationService, ITaskAppService
{
    private readonly IRepository<Task> _taskRepository;

    public TaskAppService(IRepository<Task> taskRepository)
    {
        _taskRepository = taskRepository;
    }

    [AbpAuthorize(MyPermissions.UpdatingTasks)]
    public async Task UpdateTask(UpdateTaskInput input)
    {
        Logger.Info("Updating a task for input: " + input);

        var task = await _taskRepository.FirstOrDefaultAsync(input.TaskId);
        if (task == null)
        {
            throw new UserFriendlyException(L("CouldNotFoundTheTaskMessage"));
        }

        input.MapTo(task);
    }
}
```

Dependecy Injection *

Declarative Authorization

Conventional Transaction & Connection Management

Auto Validation

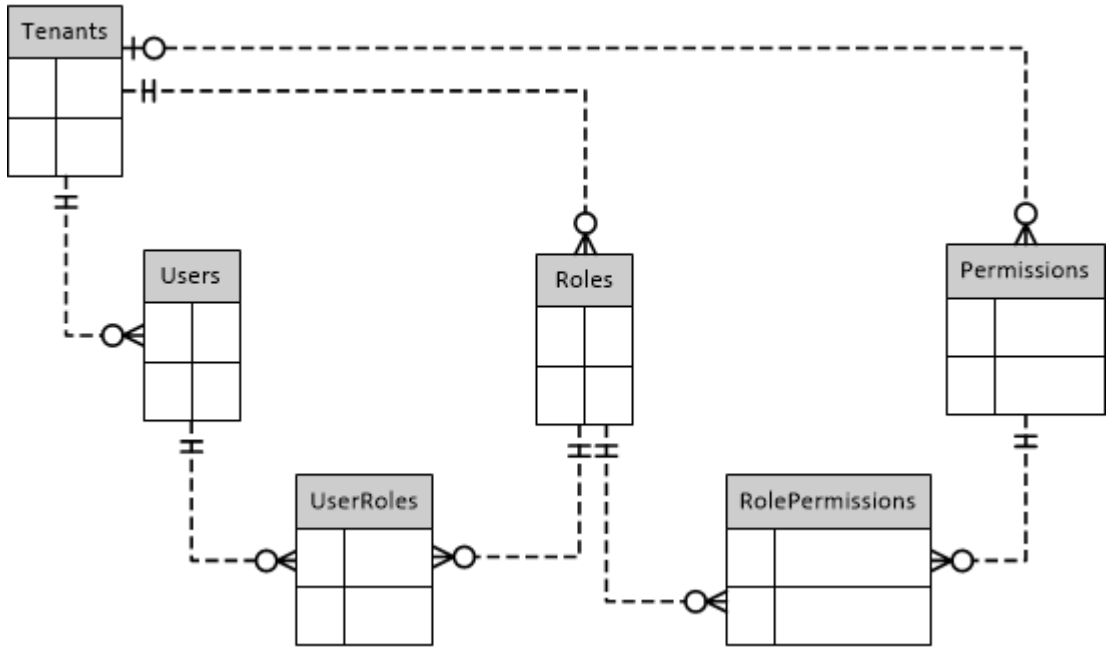
Auto Audit Logging

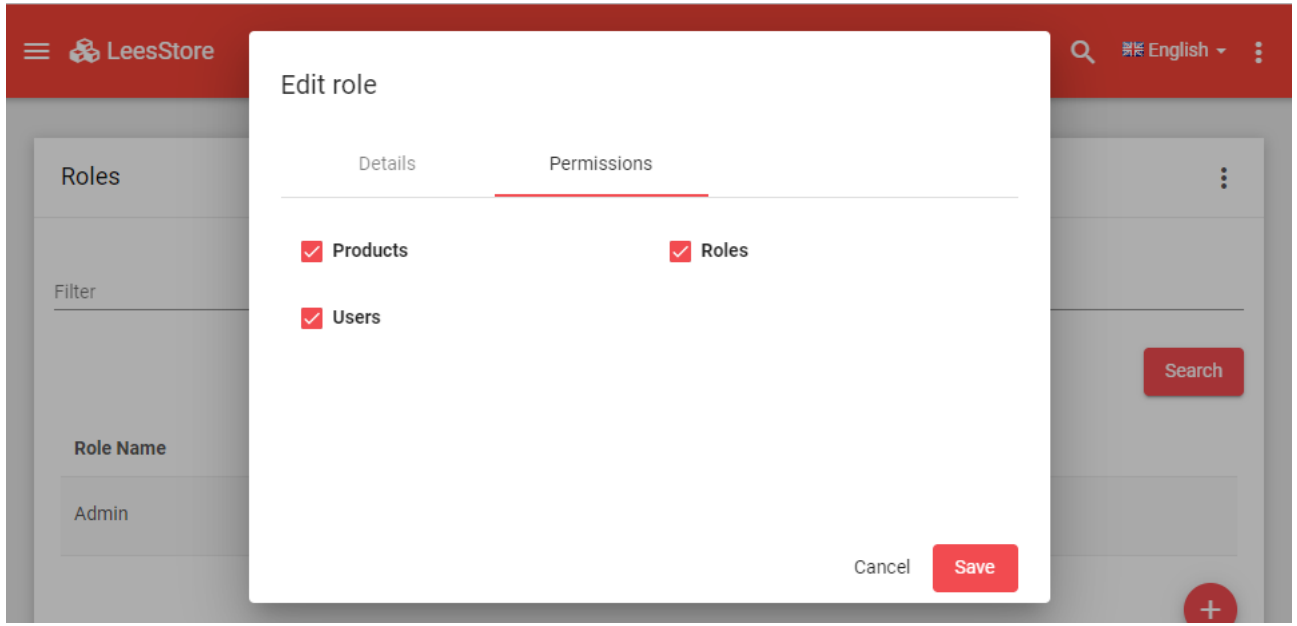
Logging

Object-to-Object Mapping (via AutoMapper)

Exception Management

Localization





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  {                   Dto
12      [Required]
13      [StringLength(1000)]
14      public string Title { g
15
16      public DateTime? DueDat
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  {                   Dto
12      [Required]
13      [StringLength(1000)]
14      public string Title { g
15
16      public DateTime? DueDat
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  {                   Dto
12      [Required]
13      [StringLength(1000)]
14      public string Title { g
15
16      public DateTime? DueDat
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

C:\dev\ABP\MyCompany.MyProject\aspnet-core\src\MyCompany.MyProject.Web.Host\App_Data\Logs

Logging

```
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.Models.AjaxResponse'.
INFO  2018
INFO  2018
INFO  2018
INFO  2018
INFO  2018-10-10 00:45:47,946 [157  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:47,946 [157  ] soft.AspNetCore.Hosting.Internal.WebHost - Request finished in 0.4959ms 204
INFO  2018-10-10 00:45:47,972 [153  ] soft.AspNetCore.Hosting.Internal.WebHost - 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  ] uthentication.JwtBearer.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 00:45:4                                                        returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:4                                                        returned the following unsupported UI Cultures 'null'.
WARN  2018-10-10 00:45:4                                                        e following unsupported cultures 'null'.
WARN  2018-10-10 00:45:4                                                        e following unsupported UI Cultures 'null'.
INFO  2018-10-10 00:45:4                                                        oller = "AbpUserConfiguration", area = ""}. Executing action Abp.AspNetCore.Mvc.Controllers.AbpUserConfigurationController.GetAll (Abp.AspNetCor
INFO  2018-10-10 00:45:4
INFO  2018-10-10 00:45:4                                                        ontrollers.AbpUserConfigurationController.GetAll (Abp.AspNetCore) - Validation state: Valid
INFO  2018-10-10 00:45:4                                                        ntrollers.AbpUserConfigurationController.GetAll (Abp.AspNetCore), returned result Microsoft.AspNetCore.Mvc.JsonResult in 45.3216ms.
INFO  2018-10-10 00:45:4                                                        'Abp.Web.Models.AjaxResponse'.
INFO  2018-10-10 00:45:4                                                        rs.AbpUserConfigurationController.GetAll (Abp.AspNetCore) in 58.6834ms
INFO  2018-10-10 00:45:4                                                        /json; charset=utf-8
INFO  2018-10-10 00:45:48,073 [157  ] soft.AspNetCore.Hosting.Internal.WebHost - Request starting HTTP/1.1 OPTIONS http://localhost:21021/api/services/app/Session/GetCurrentLoginInformations
INFO  2018-10-10 00:45:48,073 [157  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:48,074 [157  ] soft.AspNetCore.Hosting.Internal.WebHost - Request finished in 0.4581ms 204
INFO  2018-10-10 00:45:48,080 [153  ] soft.AspNetCore.Hosting.Internal.WebHost - Request starting HTTP/1.1 GET http://localhost:21021/api/services/app/Session/GetCurrentLoginInformations
INFO  2018-10-10 00:45:48,081 [153  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:48,081 [153  ] uthentication.JwtBearer.JwtBearerHandler - Successfully validated the token.
WARN  2018-10-10 00:45:48,082 [153  ] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:48,082 [153  ] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported UI Cultures 'null'.
WARN  2018-10-10 00:45:48,082 [153  ] calization.RequestLocalizationMiddleware - AbpDefaultRequestCultureProvider returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:48,082 [153  ] calization.RequestLocalizationMiddleware - AbpDefaultRequestCultureProvider returned the following unsupported UI Cultures 'null'.
INFO  2018-10-10 00:45:48,092 [153  ] ore.Mvc.Internal.ControllerActionInvoker - Route matched with {area = "app", action = "GetCurrentLoginInformations", controller = "Session"}. Executing action MyCompany.MyProject.Sessions.SessionAppService.GetCurrentLoginInformatio
INFO  2018-10-10 00:45:48,092 [153  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:48,098 [153  ] ore.Mvc.Internal.ControllerActionInvoker - Executing action method MyCompany.MyProject.Sessions.SessionAppService.GetCurrentLoginInformations (MyCompany.MyProject.Application) - Validation state: Valid
INFO  2018-10-10 00:45:48,106 [153  ] ore.Mvc.Internal.ControllerActionInvoker - Executed action method MyCompany.MyProject.Sessions.SessionAppService.GetCurrentLoginInformations (MyCompany.MyProject.Application), returned result Microsoft.AspNetCore.Mvc.ObjectResult i
INFO  2018-10-10 00:45:48,109 [153  ] .Mvc.Infrastructure.ObjectResultExecutor - Executing ObjectResult, writing value of type 'Abp.Web.Models.AjaxResponse'.
INFO  2018-10-10 00:45:48,109 [153  ] ore.Mvc.Internal.ControllerActionInvoker - Executed action MyCompany.MyProject.Sessions.SessionAppService.GetCurrentLoginInformations (MyCompany.MyProject.Application) in 17.2725ms
INFO  2018-10-10 00:45:48,109 [153  ] soft.AspNetCore.Hosting.Internal.WebHost - Request finished in 28.724ms 200 application/json; charset=utf-8
INFO  2018-10-10 00:45:50,767 [147  ] soft.AspNetCore.Hosting.Internal.WebHost - Request starting HTTP/1.1 OPTIONS http://localhost:21021/signalr/negotiate?enc_auth_token=wNYmO41%2F48SHNstaLVXxHCCre29BZQ11NhC6NM3R3rzpXtPQxVzH6jEzA%2FQhXFN5tu6Fk7pO53uppmlmVXMZgxbyRVz26d
INFO  2018-10-10 00:45:50,768 [147  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:50,768 [147  ] soft.AspNetCore.Hosting.Internal.WebHost - Request finished in 0.9288ms 204
INFO  2018-10-10 00:45:50,993 [147  ] soft.AspNetCore.Hosting.Internal.WebHost - Request starting HTTP/1.1 POST http://localhost:21021/signalr/negotiate?enc_auth_token=wNYmO41%2F48SHNstaLVXxHCCre29BZQ11NhC6NM3R3rzpXtPQxVzH6jEzA%2FQhXFN5tu6Fk7pO53uppmlmVXMZgxbyRVz26dnep
INFO  2018-10-10 00:45:50,993 [147  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:50,998 [147  ] uthentication.JwtBearer.JwtBearerHandler - Successfully validated the token.
WARN  2018-10-10 00:45:50,998 [147  ] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:50,998 [147  ] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported UI Cultures 'null'.
WARN  2018-10-10 00:45:50,998 [147  ] calization.RequestLocalizationMiddleware - AbpDefaultRequestCultureProvider returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:50,998 [147  ] calization.RequestLocalizationMiddleware - AbpDefaultRequestCultureProvider returned the following unsupported UI Cultures 'null'.
INFO  2018-10-10 00:45:50,999 [147  ] soft.AspNetCore.Hosting.Internal.WebHost - Request finished in 5.9951ms 200 application/json
INFO  2018-10-10 00:45:51,191 [158  ] soft.AspNetCore.Hosting.Internal.WebHost - Request starting HTTP/1.1 GET http://localhost:21021/signalr?enc_auth_token=wNYmO41%2F48SHNstaLVXxHCCre29BZQ11NhC6NM3R3rzp
INFO  2018-10-10 00:45:51,191 [158  ] pNetCore.Cors.Infrastructure.CorsService - Policy execution successful.
INFO  2018-10-10 00:45:51,195 [158  ] uthentication.JwtBearer.JwtBearerHandler - Successfully validated the token.
WARN  2018-10-10 00:45:51,195 [158  ] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:51,195 [158  ] calization.RequestLocalizationMiddleware - AbpUserRequestCultureProvider returned the following unsupported UI Cultures 'null'.
WARN  2018-10-10 00:45:51,195 [158  ] calization.RequestLocalizationMiddleware - AbpDefaultRequestCultureProvider returned the following unsupported cultures 'null'.
WARN  2018-10-10 00:45:51,196 [158  ] calization.RequestLocalizationMiddleware - AbpDefaultRequestCultureProvider returned the following unsupported UI Cultures 'null'.
INFO  2018-10-10 00:45:51,281 [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-Xq0ypRNJDZn3-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-Xq0ypRNJDZn3-z4Q
```

log4net

DEPLOYMENT FEATURES

File Edit Selection View Go Debug Terminal Help docker-compose.dev.yml - ng - Visual Studio Code

EXPLORER

OPEN EDITORS

docker-compose.dev.yml

NG

.env
docker-compose.base.yml
docker-compose.dev.yml
docker-compose.local.yml
docker-compose.yml
down.ps1
up.ps1

OUTLINE

docker-compose.dev.yml

Docker

```yaml
version: '3.7'

# The docker-compose.dev file uses the docker service name to connect to components on the same int
# The BTGSA_EXTERNAL_DNS_NAME_OR_IP environment variable is taken, by default, from the ".env" file
#     BTGSA_EXTERNAL_DNS_NAME_OR_IP=localhost
                                    ars at runtime will always override those defined inside t
                                    ed (instead localhost and the 10.0.75.1 IP)
                                    achines/devices using the same WiFi, for instance.

                                    following CLI command:
# docker-compose -f docker-compose.yml -f docker-compose.dev.yml up

services:
  btg.db:
    environment:
      - SA_PASSWORD=${BTGSA_DATABASE_SA_USER_PASSWORD}
      - ACCEPT_EULA=Y
      - MSSQL_PID=Developer
      - MSSQL_DB=${BTGSA_DATABASE_NAME}
      - MSSQL_USER=${BTGSA_DATABASE_USER_ACCOUNT}
      - MSSQL_PASSWORD=${BTGSA_DATABASE_USER_PASSWORD}
    ports:
      - "1433:1433"    # Important: Remove external port in production environment
    # volumes:
    # https://github.com/Microsoft/mssql-docker/issues/12
    # https://adilsoncarvalho.com/using-mssql-on-linux-using-docker-for-mac-a5d4ac81e57f
    #   - "./Db-Logs:/usr/config/"
  btg.algo:
```

MyCompany.MyProject (Running) - Microsoft Visual Studio

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

Program.cs | log4net.config | ToDo.cs | ToDoAppService.cs | IFullAudited`1.cs

MyCompany.MyProject.Migrator | MyCompany.MyProject.Migrator.Program | _quietMode

```
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(str
15          {
16              ParseArgs(args);
17
18              using (var bootstrapper
19              {
20                  bootstrapper.IocManager.IocCon
21                      .AddFacility<LoggingFacili
22                          f => f.UseAbpLog4Net()
23                      );
24
25                  bootstrapper.Initialize();
26
27                  using (var migrateExecuter = bootstrapper.IocManager.ResolveAsDisposable<MultiTenantMigrateExecute
28                  {
29                      var migrationSucceeded = migrateExecuter.Object.Run(_quietMode);
30
31                      if (_quietMode)
```

C:\Program Files\dotnet\dotnet.exe

```
2018-10-10 01:25:35 | Host database: server=localhost;database=MyProjectDb;trust
ed_connection=True
2018-10-10 01:25:35 | Continue to migration for this host database and all tenan
ts..? (Y/N):
```

Migrator

Solution Explorer

Search Solution Explorer (Ctrl+;)

- Solution 'MyCompany.MyProject' (7 projects)
  - Solution Items
  - 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

Exception Settings | Immediate Window | Output | Locals | Watch 1 | Call Hierarchy

Call Stack | Solution Explorer

TESTING FEATURES

```
29
30          [Fact]
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
```

XUnit

nsubstitute

In-Memory DB

shouldly

Testing

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, PagedAndSortedResultRequestDto, 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 (?)

Octocat
Master of Globals
Front-End

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

Lee Richardson

ASP.Net Boilerplate

These Slides:
https://bit.ly/2LQo9dB

This Video:
https://youtu.be/xmHTYF5RvMs

Buy A Siren:
https://sirenofshame.com

Work From Home:
https://infernored.com

Let's Connect:

@lprichar
www.leerichardson.com
linkedin.com/in/leerichardson
youtube.com/leerichardson200