

# GUARD THAT APP FROM USER MAYHEM

A large, semi-transparent graphic of Captain America's shield is centered behind the text. The shield features concentric red and white rings with a blue center containing a white star.

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@rhgeek

# ABOUT THE GEEK

```
function getDeveloperInfo() {  
  let dev = {  
    name: 'John Niedzwiecki',  
    desc: 'Your friendly neighborhood kilted coder.',  
    company: 'VIPRE Security',  
    role: 'Lead Software Engineer - UI',  
    twitter: '@rhgeek',  
    github: 'rhgeek',  
    web: 'https://rhgeek.github.io',  
    email: 'john.niedzwiecki.ii@gmail.com',  
    currentDevLoves: ['Angular', 'JavaScript Everywhere', 'd3', 'CSS instead of JS'],  
    nonDevAttr : {  
      isHusband: true,  
      isFather: true,  
      hobbies: ['running', 'disney', 'cooking', 'video games', 'photography'],  
      twitter: '@rgrdisney',  
      web: 'http://www.rungeekrundisney.com'  
    }  
  };  
  return dev;  
}
```

**USERS CAUSE CHAOS**

**THEY MEAN WELL BUT...**





# WHAT WE'LL DO

- ★ CanActivate
- ★ CanActivateChild
- ★ CanDeactivate
- ★ CanLoad
- ★ Resolve

# ORDER OF OPERATIONS

- ★ CanDeactivate & CanActivateChild  
deepest child route to top
- ★ CanActivate  
top down to deepest child route
- ★ If module asynchronously loaded, CanLoad
- ★ If *any* return false  
pending guards cancelled  
navigation cancelled

**CANACTIVATE**

# CANACTIVATE

Mediates navigation to a route.

Asks the question "Can I navigate to this route?"



# CANACTIVATE INTERFACE

```
interface CanActivate {  
  canActivate(  
    route: ActivatedRouteSnapshot,  
    state: RouterStateSnapshot  
  ): Observable<boolean> | Promise<boolean> | boolean  
}
```

# CANACTIVATE EXAMPLE

Protect user profile for authenticated users and admin page based on roles.

- ★ `./shared/auth-guard.service`
- ★ `route: /user`
- ★ `./shared/role-guard.service`
- ★ `route: /admin`

<https://github.com/RHGeek/guard-user-mayhem/examples/guarded-app>

**CANACTIVATECHILD**

# CANACTIVATECHILD

Mediates navigation to a child route.

Also asks the question "Can I navigate to this route?"

# CANACTIVATECHILD INTERFACE

```
interface CanActivateChild {  
  canActivateChild(  
    route: ActivatedRouteSnapshot,  
    state: RouterStateSnapshot  
  ): Observable<boolean> | Promise<boolean> | boolean  
}
```

**CANDEACTIVATE**

# CANDEACTIVATE

Mediates navigation away from the current route.

Asks the question "Can I leave where I am?"

# CANDEACTIVATE INTERFACE

```
interface CanDeactivate<boolean> {  
    canDeactivate(  
        component: T,  
        currentRoute: ActivatedRouteSnapshot,  
        currentState: RouterStateSnapshot,  
        nextState?: RouterStateSnapshot  
    ): Observable<boolean> | Promise<boolean> | boolean  
}
```



# CANDECTIVATE EXAMPLE

Protect resort details if user hasn't saved favorited items in the list.

- ⊛ `./shared/can-deactivate-guard.service`
- ⊛ `./resort-details/resort-details.component`
- ⊛ `route: /resort/:resortId/details`

<https://github.com/RHGeek/guard-user-mayhem/examples/guarded-app>

**CANLOAD**

# CANLOAD

Mediates navigation to a feature module loaded  
asynchronously

Asks the question "Can I load this module right now?"

# CANLOAD INTERFACE

```
interface CanLoad {  
    canLoad(route: Route):  
        Observable<boolean> | Promise<boolean> | boolean  
}
```

# CANLOAD EXAMPLE

Protect super admin module based on role.

- ★ `./shared/role-guard.service`
- ★ `route: /super`

<https://github.com/RHGeek/guard-user-mayhem/examples/guarded-app>

**RESOLVE**

# RESOLVE

Data retrieval before route activation.

Pre-fetches data so you don't need to show an empty component and won't navigate if data is not found.

# RESOLVE INTERFACE

```
interface Resolve<T> {  
  resolve(  
    route: ActivatedRouteSnapshot,  
    state: RouterStateSnapshot  
  ): Observable<T> | Promise<T> | T  
}
```



# RESOLVE EXAMPLE

Resolve the park name from the id before loading resort details.

- ⊛ `./shared/resort-resolver.service`
- ⊛ `./resort-details/resort-details.component`
- ⊛ `route: /resort:/resortId/details`

<https://github.com/RHGeek/guard-user-mayhem/examples/guarded-app>

# GO FORTH AND PROTECT YOUR USERS





Find me: @rhgeek

<https://rhgeek.github.io/>

Code: <https://github.com/RHGeek/guard-user-mayhem>

Please provide feedback on EventsXD app.