**Assignment 3.1 Route Guards**

*Becca Buechle*

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*Angular*

For this week’s discussion board assignment, research “Angular Route Guards” and post an original thread of at least 250 words answering the following:

* What are route guards and why are they used?
* Besides Angular’s canActivate function, what other functions are available? How do they work?  And, under what circumstances should they be used?

Route guards are interfaces that tell the router weather it should allow or not allow for the navigation to the requested route. (Alligator.io.) This just means that should the user have access to this part of the page they are requesting. This is decided on depending on the true or false return value from the class that implements the guard interface. The route guard can also use CanDeactivate guard that allows for a developer to prevent the user from possibly leaving a component with unsaved changes. (Alligator.io.) This will make sure that the user really wants to leave before they save/update the item. A few other route guards are: CanActivate – Controls if the route should be allowed to be activated then the CanActivateChild Uses the control if the child of the route is active and lastly the CanLoad – Says weather or not the route can even load, and lastly the Resolve - route guard that checks before routing anywhere if we want to ensure weather there is any data or not. (Chenkie, R.) Useful for lazy loaded modules. There are many reasons why to use route guards one major one is that its not easily hackable. (Chenkie, R.) The user could try to make changes to their role and such but any type of changes that happen will invalidate the signature .JSON web Token. (Chenkie, R.) The signatures are calculated using the payload and any chances will throw this off. This meaning your users won’t be able to access any protected resources with it this is just one of many reasons why you should consider using a route guard.

**Bibliography**

Alligator.io. (2017, May 5). Angular Router: Using Route Guards. Retrieved September 27, 2020, from https://www.digitalocean.com/community/tutorials/angular-route-guards

Chenkie, R. (2019, July 09). Angular Authentication: Using Route Guards. Retrieved September 27, 2020, from https://medium.com/@ryanchenkie\_40935/angular-authentication-using-route-guards-bf7a4ca13ae3