Lab 3 Networking on AGOL

This lab Will perform the "Find Routes" funcion on AGOL.

Run this cell to connect to your GIS and get started:

In [1]:
```
from arcgis.gis import GIS
gis = GIS("home")
```

```
/opt/conda/lib/python3.6/site-packages/arcgis/gis/__init__.py:407: Us
erWarning: You are logged on as rosen656_UMN with an administrator ro
le, proceed with caution.
  self.users.me.username)
```

Now you are ready to start!

Adding the layers from Arc Pro.

In [2]:
```
# Item Added From Toolbar
# Title: Orders | Type: Feature Service | Owner: rosen656_UMN
Orders = gis.content.get("b9e03f6f99f149cda0d9947fb343b8a3")
Orders
```

Out[2]:

Orders (https://www.arcgis.com/home/item.html?id=b9e03f6f99f149cda0d9947fb343b8a
Lab 3 orders

Feature Layer Collection by rosen656_UMN
Last Modified: March 26, 2021
0 comments, 7 views

(https://www.arcgis.com/home/item.html?id=b9e03f6f99f149cda0d9947fb343b8a3)

In [3]:
```
# Item Added From Toolbar
# Title: Routes_2 | Type: Feature Service | Owner: rosen656_UMN
Routes = gis.content.get("1d0d4f2924224e5a9f11f249456d9f73")
Routes
```

Out[3]:

Routes_2 (https://www.arcgis.com/home/item.html?id=1d0d4f2924224e5a9f11f249456d9f7
lab 3 routes

Feature Layer Collection by rosen656_UMN
Last Modified: March 25, 2021
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(https://www.arcgis.com/home/item.html?id=1d0d4f2924224e5a9f11f249456d9f73)

In [4]:
```
# Item Added From Toolbar
# Title: Depots | Type: Feature Service | Owner: rosen656_UMN
Depot = gis.content.get("8b921de954ff4416a0ccd61f59dbe630")
Depot
```

Out[4]:

Depots (https://www.arcgis.com/home/item.html?id=8b921de954ff4416a0ccd61f59dbe6
Lab 3 Depot

Feature Layer Collection by rosen656_UMN
Last Modified: March 25, 2021
0 comments, 6 views
(https://www.arcgis.com/home/item.html?id=8b921de954ff4416a0ccd61f59dbe630)

In [15]:
```
# Item Added From Toolbar
# Title: Barrier_D | Type: Feature Service | Owner: rosen656_UMN
barrier = gis.content.get("d4476c0ba78e4428807de10a5e2a3247")
barrier
```

Out[15]:

Barrier_D (https://www.arcgis.com/home/item.html?id=d4476c0ba78e4428807de10a5e2a3
Barrier for Lab 3

Feature Layer Collection by rosen656_UMN
Last Modified: March 25, 2021
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(https://www.arcgis.com/home/item.html?id=d4476c0ba78e4428807de10a5e2a3247)

Plan Routes

In [20]:
```
from arcgis import features
features.use_proximity.plan_routes(Orders, 2, 5, 12/23/2019, Depot, "name", True, "", "", "Driving Time")

## Stops_layer, 2 vehicles, maximumn stops, start data, start layer, start layer name, reture to start, and travel mode.
```

```
Network elements with avoid-restrictions are traversed in the output
(restriction attribute names: "Through Traffic Prohibited").
```

Out[20]:
```
{'routes_layer': <FeatureCollection>,
 'assigned_stops_layer': <FeatureCollection>}
```

It worked, but I was unable to put in start and end times so it will not follow all the stop rules. Also, while the function had a parameter for barriers, it would not allow me to add it because it covered too many features.