

```
library(tidyverse)
library(tidygraph)

Define each node as a trip

nta_trips <- readr::read_csv('./data/nta-trip-network.csv')
nta_trip_nodes <- tibble::tibble(name = nta_trips$trip)
```

Define each edge as a shared NTA between two trips

```
edges_from <- vector()
edges_to <- vector()
nodes <- nta_trip_nodes$name
nodes_count <- length(nodes)
for(i in 1:(nodes_count - 1)) {
  offset <- i + 1
  from_node <- nodes[i]
  from_nta_one <- stringr::str_sub(from_node, 1, 4)
  from_nta_two <- stringr::str_sub(from_node, 5, 8)
  for(j in offset:nodes_count){
    to_node <- nodes[j]
    are_neighbors <- stringr::str_detect(to_node, from_nta_one) | stringr::str_detect(to_node, from_nta_two)
    if (are_neighbors) {
      edges_from <- append(edges_from, from_node)
      edges_to <- append(edges_to, to_node)
    }
  }
}
```

Construct the graph

```
nta_trip_edges <- tibble::tibble(from = edges_from, to = edges_to)
nta_trip_network <- tidygraph::tbl_graph(nodes = nta_trip_nodes, edges = nta_trip_edges)
```

Plot the graph

```
plot(nta_trip_network)
```

