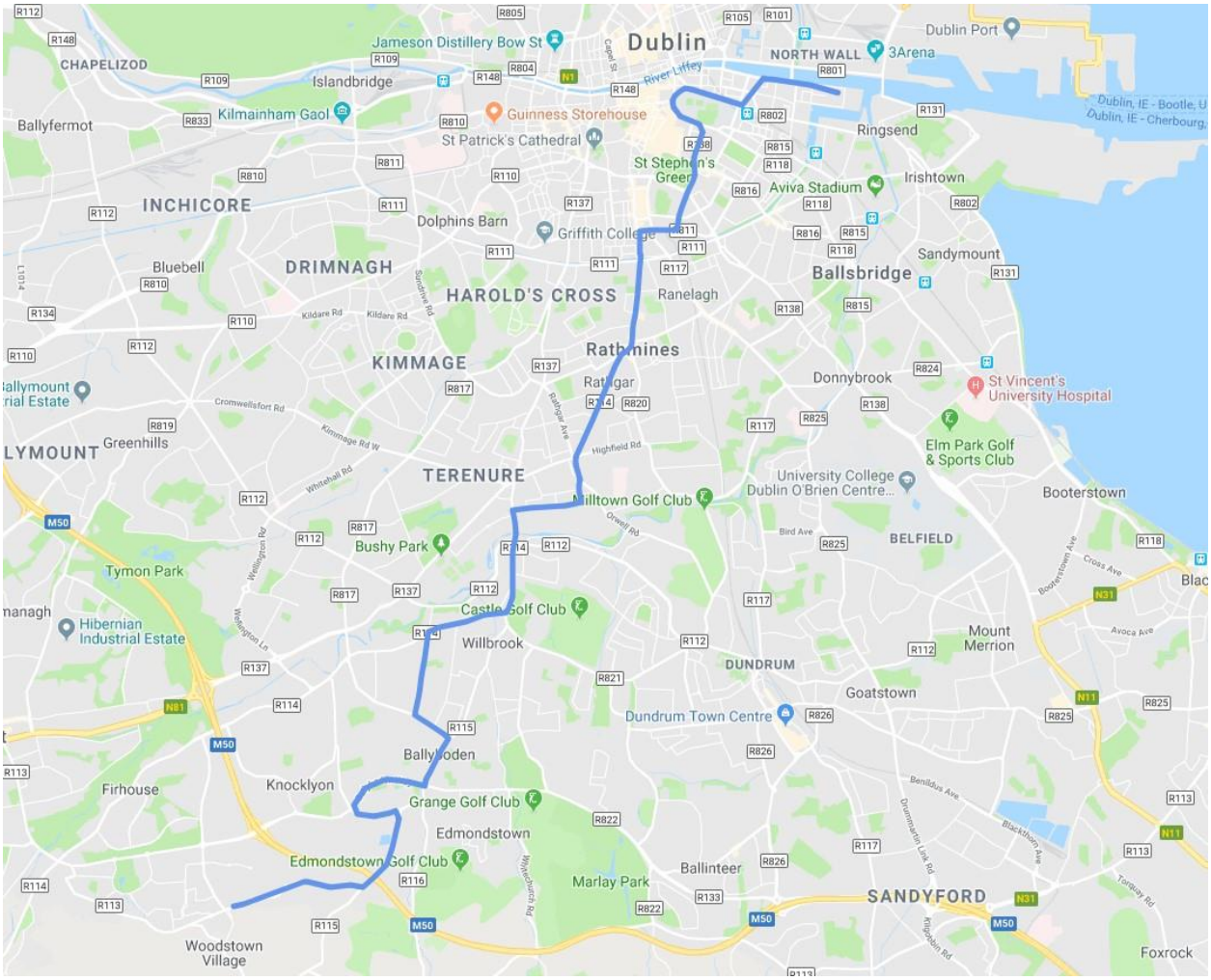
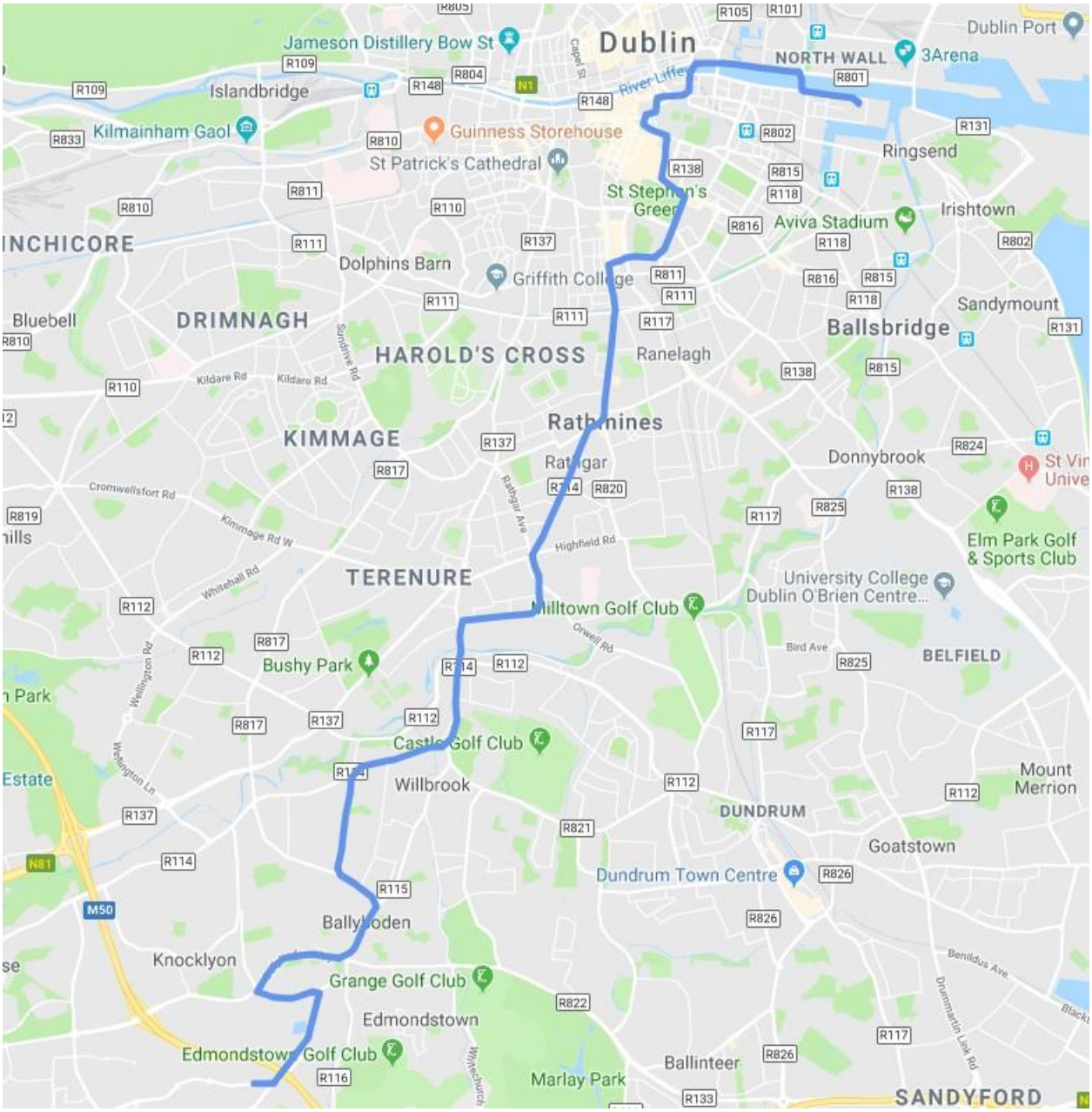
Τεχνικές Εξόρυξης Δεδομένων

Ερώτημα 1

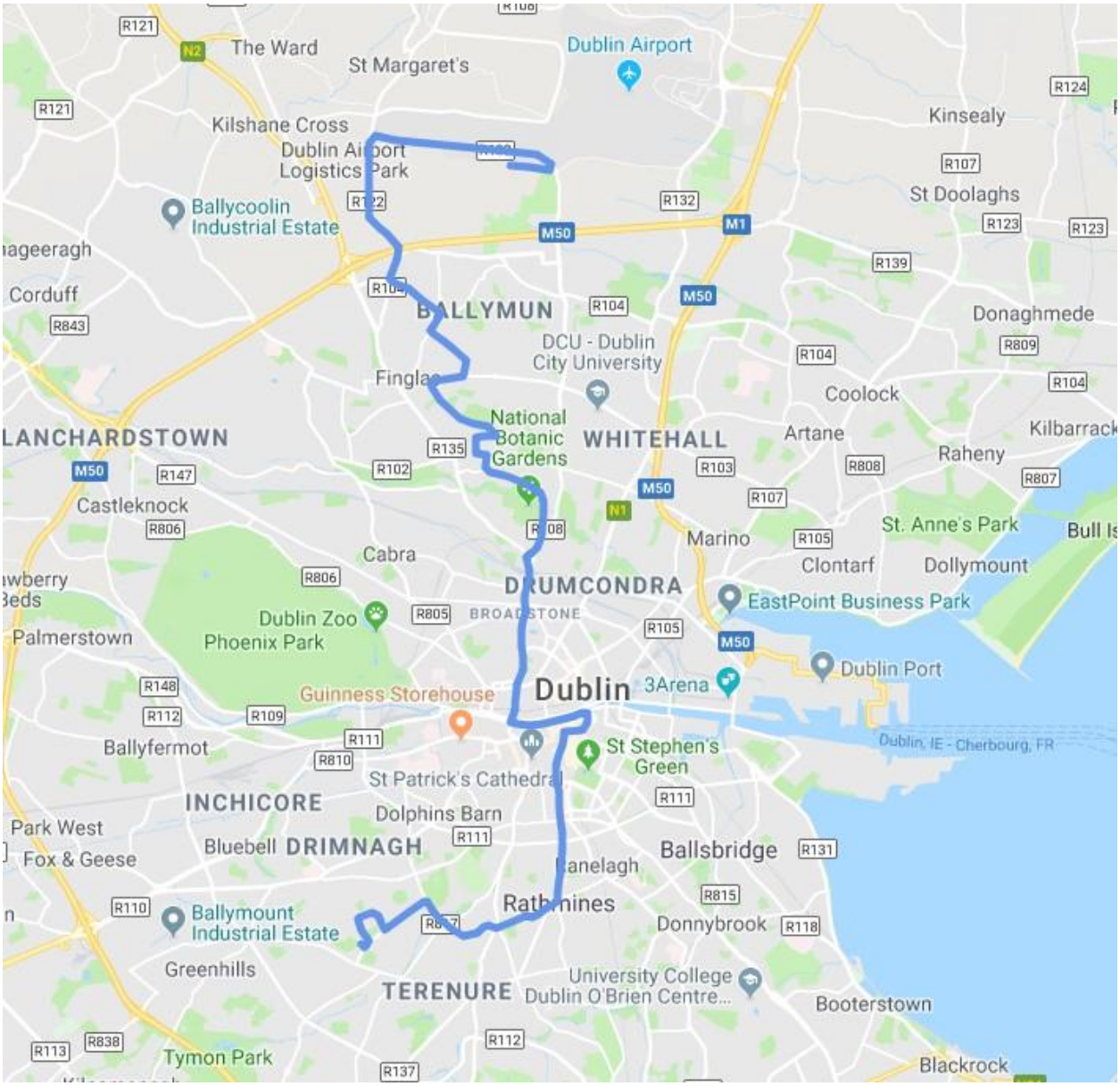
015B0001



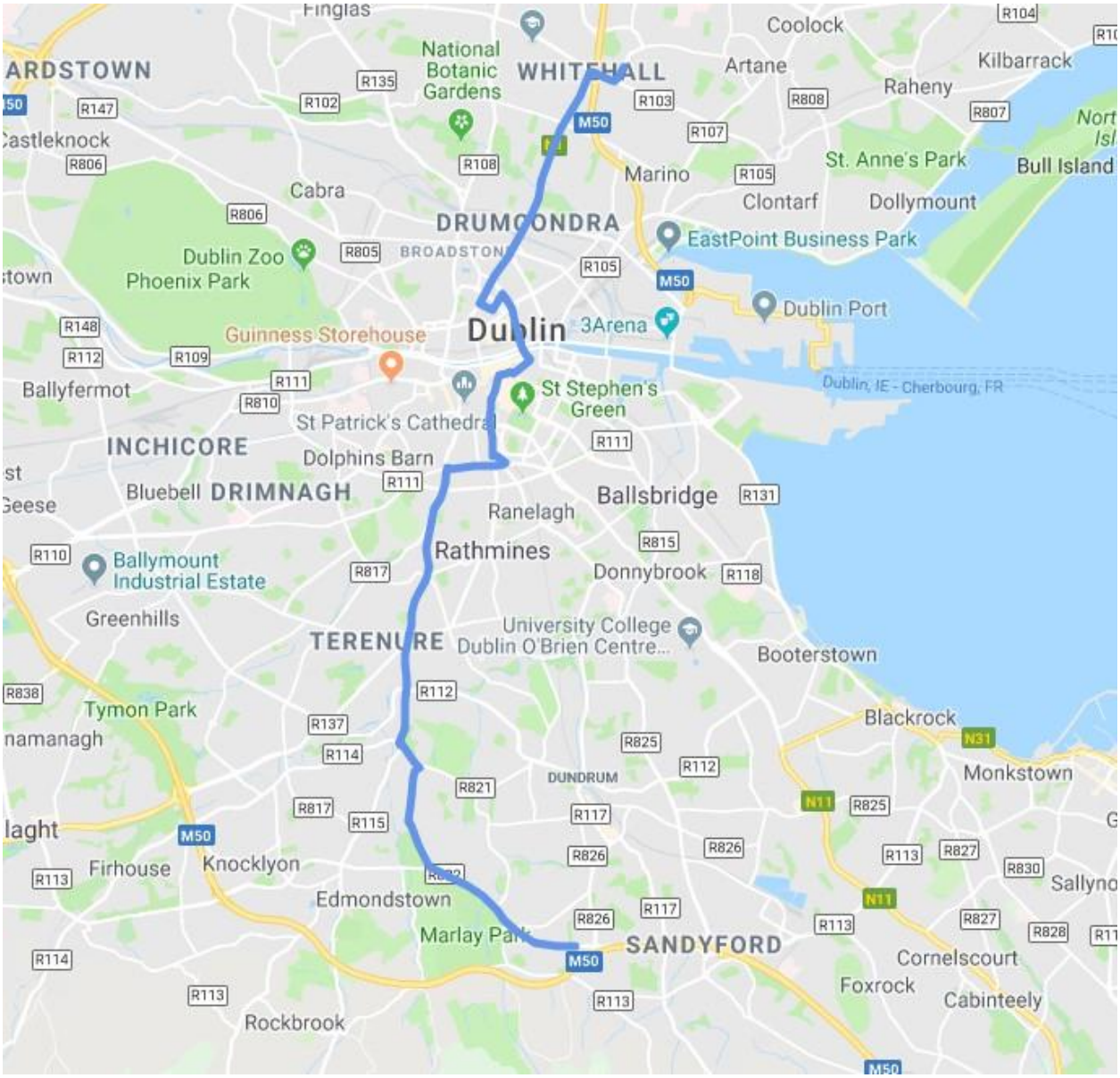
015B1001


Dublin
Jameson Distillery Bow St
Islandbridge
Kilmainham Gaol
Guinness Storehouse
St Patrick's Cathedral
St Stephen's Green
NORTH WALL
3Arena
Dublin Port
Ringsend
Irishtown
Aviva Stadium
Sandymount
Ballsbridge
Ranelagh
Griffith College
Dolphins Barn
INCHICORE
DRIMNAGH
Bluebell
HAROLD'S CROSS
KIMMAGE
Rathmines
Rathgar
Donnybrook
TERENURE
Milltown Golf Club
University College Dublin O'Brien Centre...
Elm Park Golf & Sports Club
Bushy Park
BELFIELD
Castle Golf Club
Willbrook
DUNDRUM
Mount Merrion
Goatstown
Dundrum Town Centre
Ballyboden
Knocklyon
Grange Golf Club
Edmondstown
Edmondstown Golf Club
Ballinteer
Marlay Park
SANDYFORD
Kildare Rd
Cromwellsfort Rd
Kimmage Rd W
Whitehall Rd
Highfield Rd
Orwell Rd
Bird Ave
Wellington Rd
Wellington Ln
Sundrive Rd
Rathgar Ave
Capel St
River Liffey
M50
N81
N1

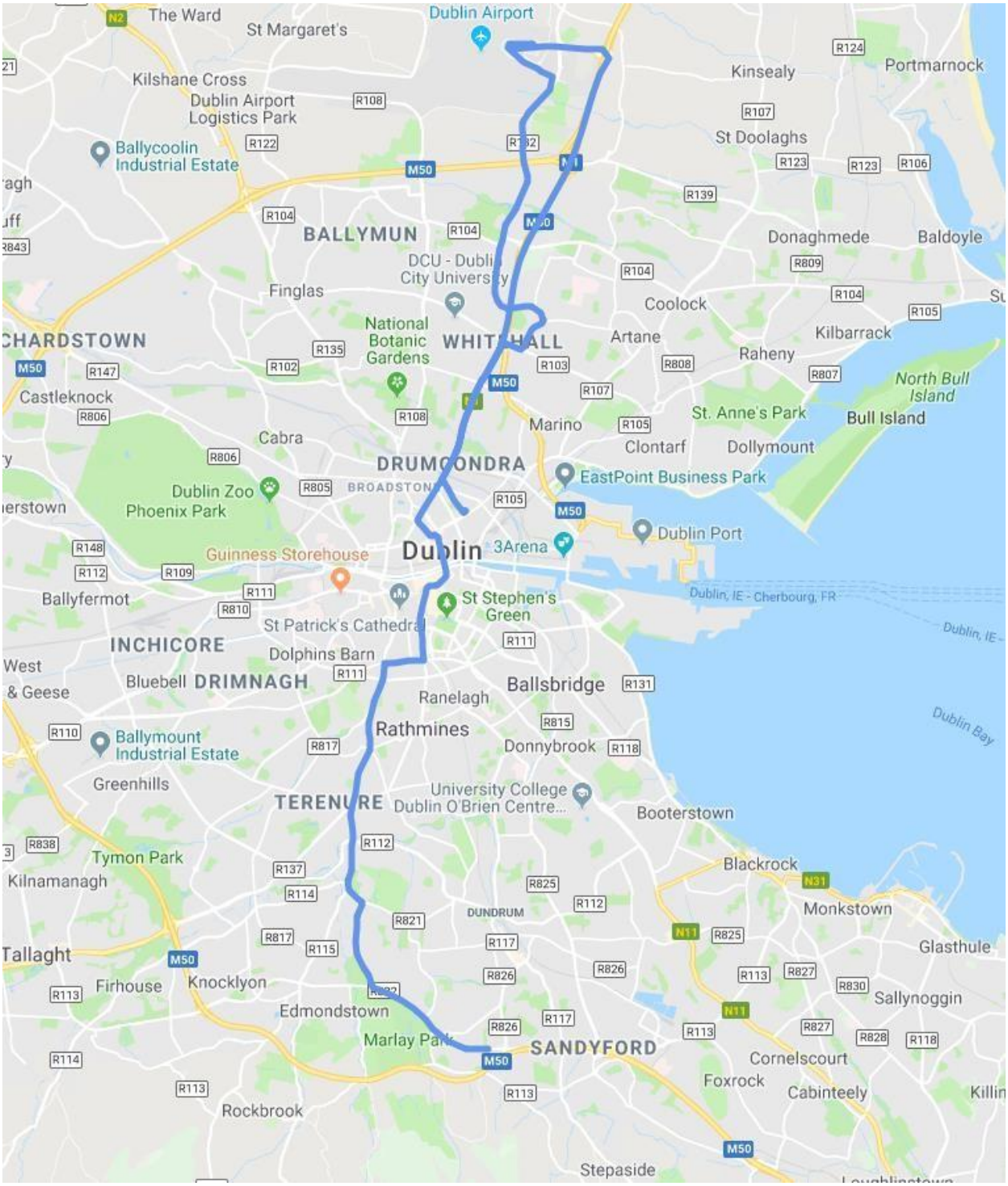
083A1001


Dublin Airport
The Ward
St Margaret's
Kilshane Cross
Dublin Airport Logistics Park
Ballycoolin Industrial Estate
Kinsealy
St Doolaghs
Corduff
BALLYMUN
DCU - Dublin City University
Donaghmede
Coolock
National Botanic Gardens
WHITEHALL
Artane
Raheny
Kilbarrack
LANCHARDSTOWN
Castleknock
Cabra
Marino
St. Anne's Park
Clontarf
Dollymount
DRUMCONDRA
EastPoint Business Park
Dublin Zoo
Phoenix Park
BROADSTONE
Palmerstown
Dublin
3Arena
Dublin Port
Guinness Storehouse
Ballyfermot
St Stephen's Green
Dublin, IE - Cherbourg, FR
St Patrick's Cathedral
INCHICORE
Dolphins Barn
Park West
Bluebell
DRIMNAGH
Fox & Geese
Ballsbridge
Ballymount Industrial Estate
Rathmines
Donnybrook
Greenhills
TERENURE
University College Dublin O'Brien Centre...
Booterstown
Tymon Park
Blackrock

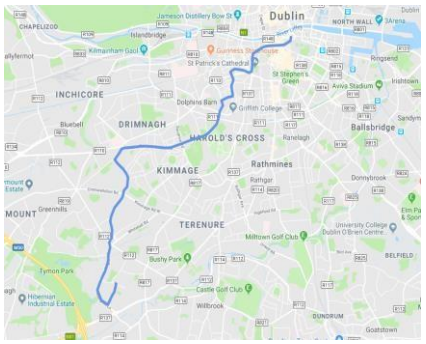
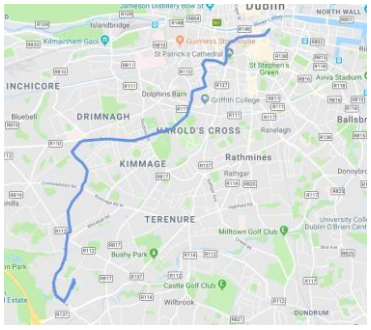
00160001

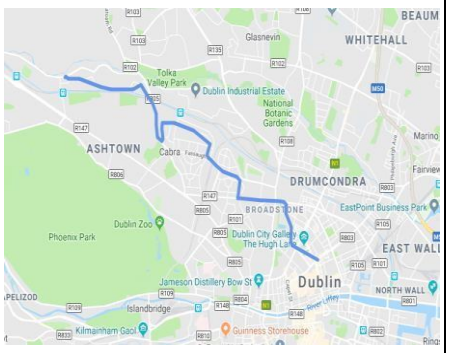
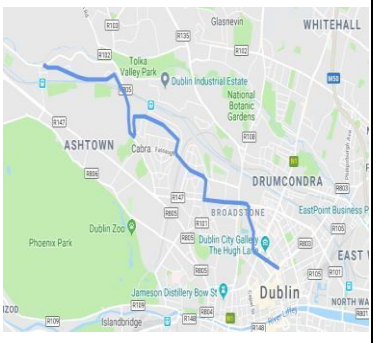
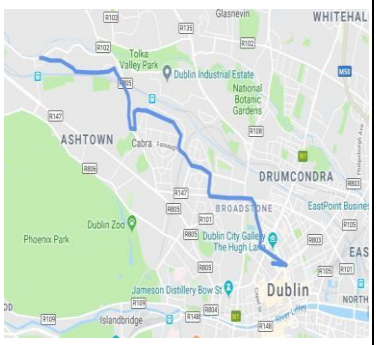

Finglas
Coolock
National Botanic Gardens
WHITEHALL
Artane
Kilbarrack
Raheny
Castleknock
Cabra
Marino
St. Anne's Park
Bull Island
Clontarf
Dollymount
DRUMCONDRA
EastPoint Business Park
Dublin Zoo
Phoenix Park
BROADSTONE
Dublin Port
Dublin
3Arena
Guinness Storehouse
Ballyfermot
St Stephen's Green
St Patrick's Cathedral
INCHICORE
Dolphins Barn
Bluebell
DRIMNAGH
Ballsbridge
Ranelagh
Rathmines
Donnybrook
Ballymount Industrial Estate
Greenhills
TERENURE
University College Dublin O'Brien Centre...
Booterstown
Tymon Park
Blackrock
Monkstown
DUNDRUM
Firhouse
Knocklyon
Edmondstown
Marlay Park
SANDYFORD
Cornelscourt
Foxrock
Cabinteely
Rockbrook
M50
N11
N31

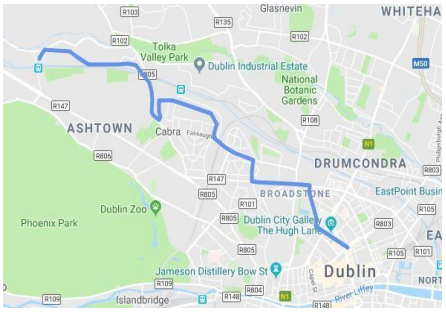
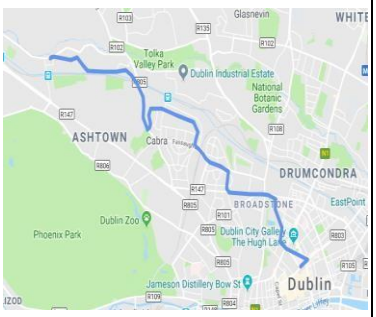
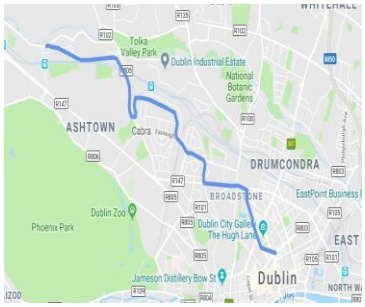
00161001

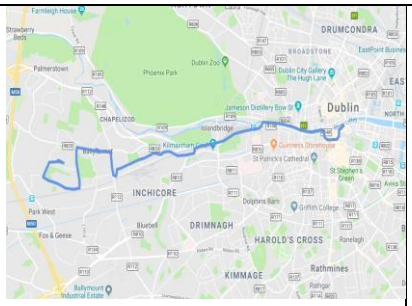


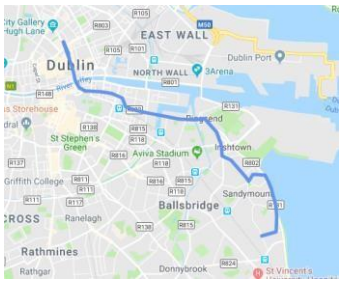
Ερώτημα 2: *A1*

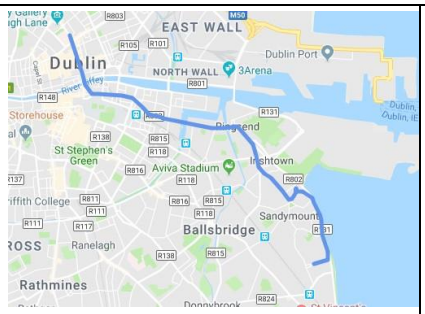
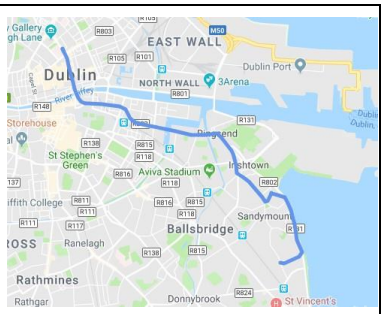
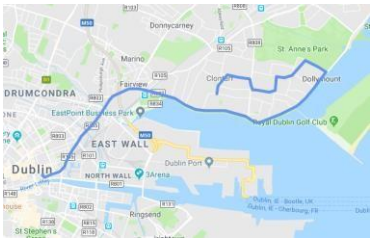
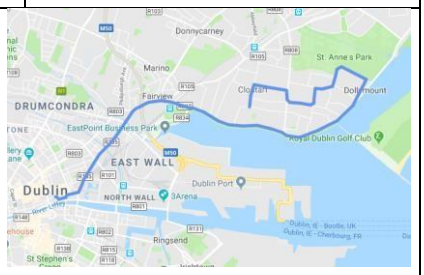
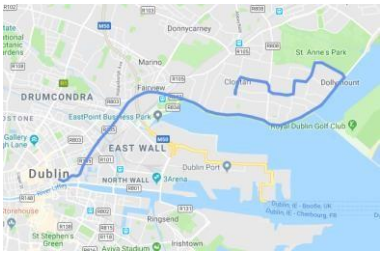
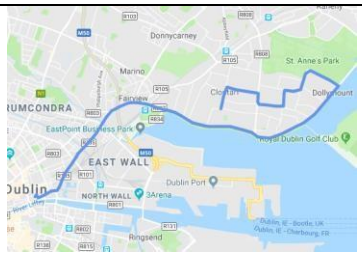
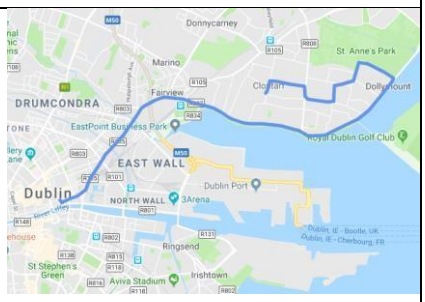
 Test Trip 1 Δt = 640.71 seconds	 *Neighbor 1* JP-ID: 01501001 DTW: 0.0	 *Neighbor 2* JP-ID: 01501001 DTW: 4.75969430159 km
 Neighbor 3 JP-ID: 01501001 DTW: 5.14039600844 km	 *Neighbor 4* JP-ID: 01501001 DTW: 5.28965426169 km	 *Neighbor 5* JP-ID: 01501001 DTW: 5.42564005929 km

 Test Trip 2 Δt = 640.71 seconds	 *Neighbor 1* JP-ID: 01200001 DTW: 0.0	 *Neighbor 2* JP-ID: 01200001

		DTW: 4.04876501568 km
 *Neighbor 3* JP-ID: 01200001 DTW: 4.61949680884 km	 *Neighbor 4* JP-ID: 01200001 DTW: 4.75077338023 km	 *Neighbor 5* JP-ID: 01200001 DTW: 4.9376317303 km

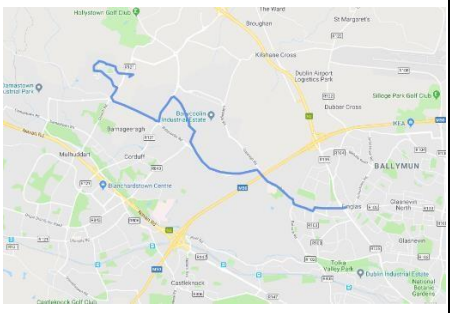
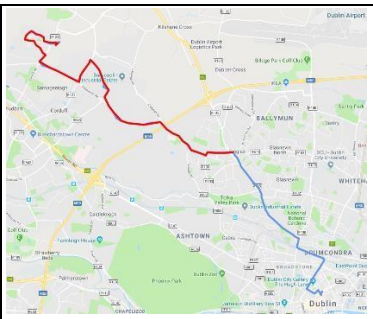
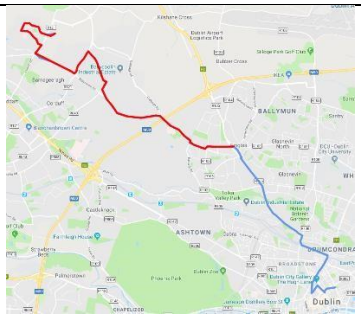
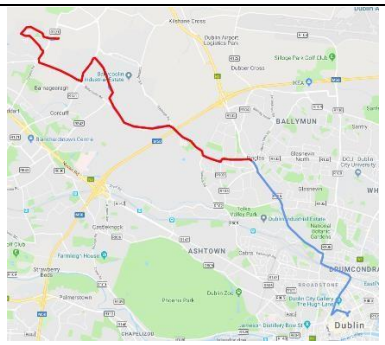
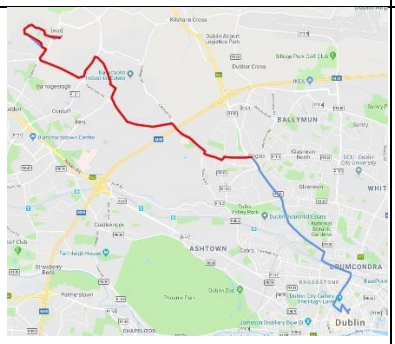
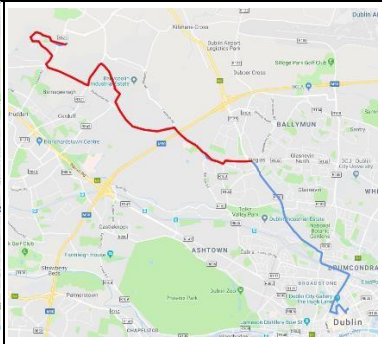
 Test Trip 3 Δt = 640.71 seconds	 *Neighbor 1* JP-ID: 00791001 DTW: 0.0	 *Neighbor 2* JP-ID: 00791001 DTW: 6.9054618011 km
 Neighbor 3 JP-ID: 00791001 DTW: 7.06420700122 km	 *Neighbor 4* JP-ID: 00791001 DTW: 7.13563586752 km	 *Neighbor 5* JP-ID: 00791001 DTW: 7.1457382969 km

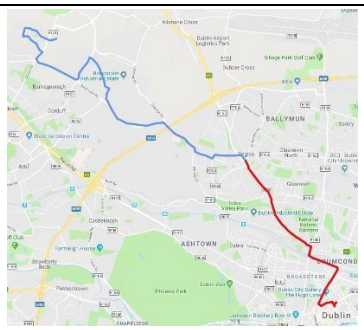
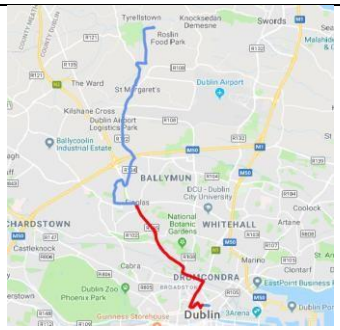
 Test Trip 4 Δt = 640.71 seconds	 *Neighbor 1* JP-ID: 00010002 DTW: 0.0	 *Neighbor 2* JP-ID: 00010002 DTW: 3.54415661464 km

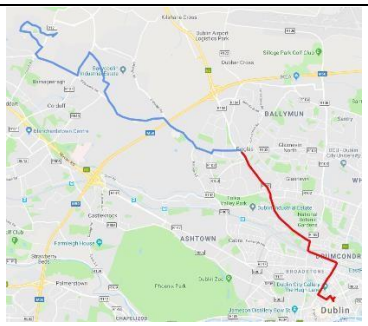
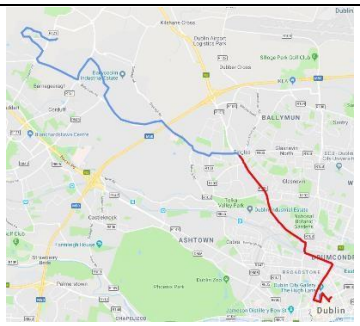
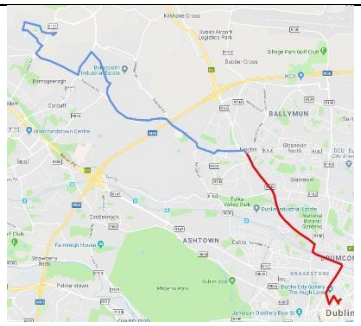
 Neighbor 3 JP-ID: 00010002 DTW: 3.90347495017 km	 *Neighbor 4* JP-ID: 00010002 DTW: 4.28835007873 km	 *Neighbor 5* JP-ID: 00010002 DTW: 4.83905670127 km
 Test Trip 5 Δt = 640.71 seconds	 *Neighbor 1* JP-ID: 01300001 DTW: 0.0	 *Neighbor 2* JP-ID: 01300001 DTW: 6.30147567111 km
 *Neighbor 3* JP-ID: 01300001 DTW: 6.49882195023 km	 *Neighbor 4* JP-ID: 01300001 DTW: 6.5043985644 km	 *Neighbor 5* JP-ID: 01300001 DTW: 6.63023162718 km

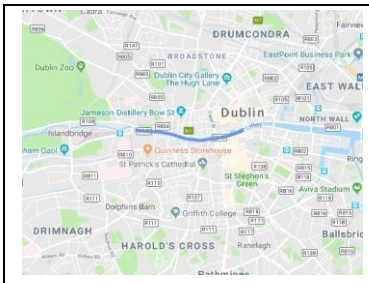
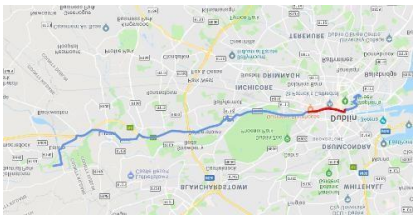
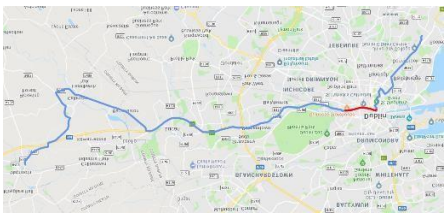
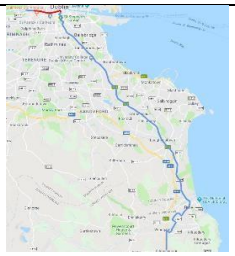
Ερώτημα 2: *A2*

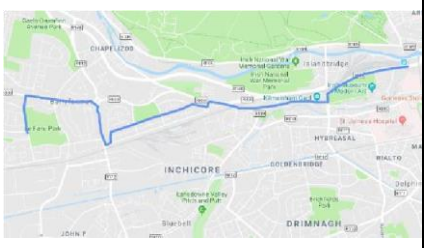
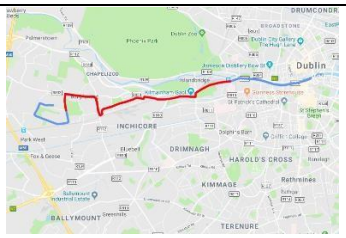
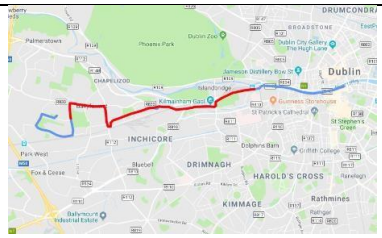
Για τα δεδομένα αφαιρέθηκε ο παράγοντας του χρόνου καθώς επίσης οι συντεταγμένες που ήταν ίδιες στη σειρά.

 Test Trip 1 Δt = 623.95 seconds	 *Neighbour 1* JP-ID: 040D1002 #Matching Points: 71	 *Neighbour 2* JP-ID: 040D1002 #Matching Points: 68
 *Neighbour 3* JP-ID: 040D1002 #Matching Points: 68	 *Neighbour 4* JP-ID: 040D1002 #Matching Points: 67	 *Neighbour 5* JP-ID: 040D1002 #Matching Points: 67

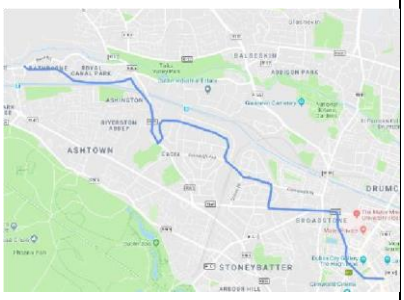
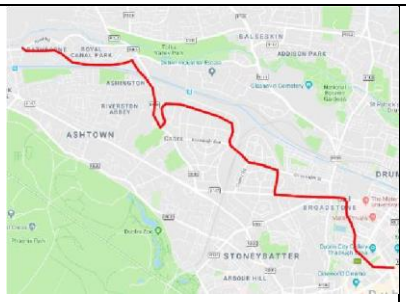
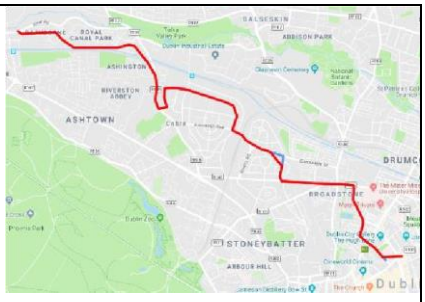
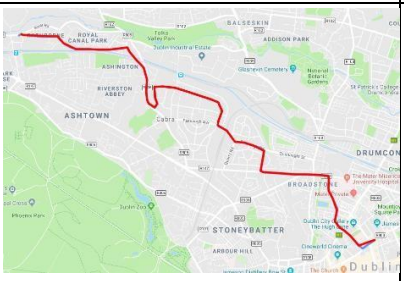
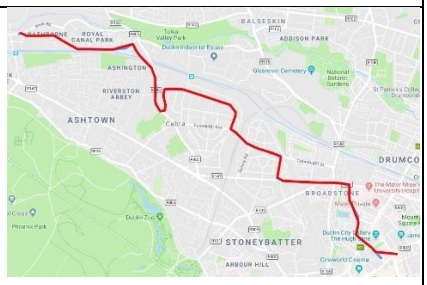
 Test Trip 2 Δt = 623.95 seconds	 Neighbour 1 JP-ID: 040D1002 #Matching Points: 59	 Neighbour 2 JP-ID: 040B1001 #Matching Points: 58

 Neighbour 3 JP-ID: 040D1002 #Matching Points: 57	 Neighbour 4 JP-ID: 040D1002 #Matching Points: 56	 Neighbour 5 JP-ID: 040D1002 #Matching Points: 55

 Test Trip 3 Δt = 623.95 seconds	 Neighbour 1 JP-ID: 01451001 #Matching Points: 24	 Neighbour 2 JP-ID: 01451001 #Matching Points: 24
 Neighbour 3 JP-ID: 066A0001 #Matching Points: 24	 Neighbour 4 JP-ID: 067X0001 #Matching Points: 24	 Neighbour 5 JP-ID: 01451001 #Matching Points: 24

 Test Trip 4 Δt = 623.95 seconds	 Neighbour 1 JP-ID: 00790001 #Matching Points: 59	 Neighbour 2 JP-ID: 00790001 #Matching Points: 56

Neighbour 3 JP-ID: 00790001 #Matching Points: 56	Neighbour 4 JP-ID: 00790001 #Matching Points: 55	Neighbour 5 JP-ID: 00790001 #Matching Points: 55

 Test Trip 5 Δt = 623.95 seconds	 Neighbour 1 JP-ID: 01200001 #Matching Points: 65	 Neighbour 2 JP-ID: 01200001 #Matching Points: 64
 Neighbour 3 JP-ID: 01200001 #Matching Points: 64	Neighbour 4 JP-ID: 01200001 #Matching Points: 63	 Neighbour 5 JP-ID: 01200001 #Matching Points: 63

Ερώτημα 3

Cross Validation Scores:

[0.81818182 0.83333333 0.83333333 0.83333333 0.81818182 0.83076923

0.90769231 0.8 0.84615385 0.87692308]

--- 6408.30599999 seconds ---

Test_Trip_ID	Predicted_JourneyPatternID
0	015A1001
1	1200001 2 1800 01
3	530001
4	1300001