**1. If the teenager wants to go to Swords Library is there any bike stand near the library?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT ?x ?name2

WHERE {

?a a ns0:RecreationFacilities.

?x a ns0:BikeStand.

?a ns0:hasName ?name1.

?a ns0:hasArea ?area1.

?x ns0:hasArea ?area2.

?x ns0:hasName ?name2.

FILTER(?name1 = "Swords Library" && ?area1 = ?area2 )

}Limit 3

**2. If the teenager wants to go to the Swords Area, are there any bike parking places near the library?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

PREFIX geof: <http://www.opengis.net/def/function/geosparql/>

PREFIX uom: <http://www.opengis.net/def/uom/OGC/1.0/>

SELECT (COUNT(DISTINCT \*) as ?count)

WHERE {{

?a a ns0:BleeperBikesParking.

?a ns0:hasArea ?area1.

FILTER(?area1 = "Swords")

} union {

?x a ns0:BikeStand.

?x ns0:hasArea ?area2.

FILTER(?area2 = "Swords")

} union {

?s a ns0:PubParkingPlayGround.

?s ns0:hasBicycleParking ?bicycleParking.

FILTER(?bicycleParking = "Yes")

}

}

**3. If students can get the location extended information from a bike stand area?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

PREFIX geof: <http://www.opengis.net/def/function/geosparql/>

PREFIX uom: <http://www.opengis.net/def/uom/OGC/1.0/>

SELECT (COUNT(DISTINCT \*) as ?count)

WHERE {{

?a a ns0:BleeperBikesParking.

?a ns0:hasArea ?area1.

FILTER(?area1 = "Swords")

} union {

?x a ns0:BikeStand.

?x ns0:hasArea ?area2.

FILTER(?area2 = "Swords")

} union {

?s a ns0:PubParkingPlayGround.

?s ns0:hasBicycleParking ?bicycleParking.

FILTER(?bicycleParking = "Yes")

}

}

**4. How many bike parking places including the bike stand and Bleeper bikes parking area near swords area in FCC?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT (COUNT(DISTINCT \*) as ?count)

WHERE {{

?a a ns0:BleeperBikesParking.

?a ns0:hasArea ?area1.

FILTER(?area1 = "Swords")

} union {

?x a ns0:BikeStand.

?x ns0:hasArea ?area2.

FILTER(?area2 = "Swords")

} union {

?s a ns0:PubParkingPlayGround.

?s ns0:hasBicycleParking ?bicycleParking.

FILTER(?bicycleParking = "Yes")

}

}

**5. The list of all tennis courts in FCC.**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT DISTINCT ?x ?name

WHERE { {

?x a ns0:RecreationFacilities.

?x ns0:hasSportType ?sportType.

?x ns0:hasName ?name.

FILTER(?sportType = "Playground, MUGA, Outdoor Gyms, Tennis")

} union {

?x a ns0:PubParkingPlayGround.

?x ns0:hasName ?name.

?x ns0:hasTennis ?hasTennis.

FILTER(?hasTennis = "Yes")

}

}

**6. How many running tracks in FCC in all?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>

SELECT (COUNT(DISTINCT ?name1) + COUNT(DISTINCT ?name2) as ?count) WHERE {

#SELECT DISTINCT ?name WHERE {

?a a ns0:RecreationFacilities.

?a ns0:hasActivityType ?type1.

?a ns0:hasName ?name1.

?x a ns0:PlayingPitch.

?x ns0:hasActivityType ?type2.

?x ns0:hasName ?name2.

?x ns0:sameActivityTypeWithPC ?sportTypeArea

FILTER (?type1 = "Running Track" && ?a = ?sportTypeArea)

}

**7. The concrete information about Swords Town Park.**

​​PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT ?name2 ?sportType ?activityType ?activityDescription ?chain ?fee ?openning ?accessibility ?access ?hasTennis ?HeritageVenue ?cafe ?BicycelParking ?Parking ?Toilets

WHERE { {

?a a ns0:RecreationFacilities.

?a ns0:hasSportType ?sportType.

?a ns0:hasName ?name1.

?a ns0:hasFee ?fee.

?a ns0:hasActivityType ?activityType.

?a ns0:hasActivityDescription ?activityDescription.

?a ns0:haschain ?chain.

?a ns0:hasOpening ?openning.

?a ns0:hasAccessiblity ?accessibility.

?a ns0:hasAccess ?access.

?x a ns0:PubParkingPlayGround.

?x ns0:hasName ?name2.

?x ns0:hasTennis ?hasTennis.

?x ns0:hasHeritageVenue ?HeritageVenue.

?x ns0:hasCafe ?cafe.

?x ns0:hasBicycleParking ?BicycelParking.

?x ns0:hasParking ?Parking.

?x ns0:hasToilets ?Toilets.

FILTER

(?name1 ="Swords Town Park" && ?name2 = "Swords Town Park")

}

}

**8. If the teenager wants to go to Lusk United FC pitches is there any shared bike he can use?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT DISTINCT ?x ?point2

WHERE {

?a a ns0:RecreationFacilities.

?x a ns0:MobyBikeLocation.

?a ns0:hasName ?name1.

?a ns0:asWKT ?point1.

?x ns0:asWKT ?point2.

BIND(geof:distance(?point1,?point2,uom:metre) as ?distance )

FILTER(?name1 = "Lusk United FC pitches" && ?distance < 15000 )

} ORDER BY DESC(?distance) LIMIT 5

**9. As a student of Ardgillan Community College who uses a wheelchair, is there any wheelChair accessible library he/she can go to?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT ?a ?name1

WHERE {

?a a ns0:RecreationFacilities.

?a ns0:hasArea ?area1.

?a ns0:hasAccessiblity ?accessibility.

?a ns0:hasName ?name1.

?x a ns0:GreenSchool.

?x ns0:hasName ?name2.

?x ns0:nearBy ?nearByRecreation.

FILTER(?a = ?nearByRecreation && ?name2 = "Fingal Community College" && ?accessibility = "Wheelchair access")

}

**10. If a student wants to choose a non-chain sports center including a running track, when should he/she avoid going since there may be a lot of people?**

PREFIX owl: <http://www.w3.org/2002/07/owl#>

PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>

PREFIX ns0: <http://www.semanticweb.org/26690/ontologies/2022/10/untitled-ontology-2/>

PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>

SELECT ?time

WHERE {

?x a ns0:CycleCounter.

?x ns0:hasTime ?time.

?x ns0:hasMortonStadium ?count1.

?x ns0:hasCoastRoad ?count2.

?x ns0:hasCastleknock ?count3.

{SELECT distinct ?o4 WHERE {

?a a ns0:RecreationFacilities.

?a ns0:hasName ?name.

?a ns0:hasActivityType ?activityType.

?a ns0:haschain ?chain.

?a ns0:hasArea ?area1.

FILTER( ?chain = "No"&& ?activityType = "Running Track" )

BIND(replace(?name, " ","") AS ?o2)

BIND(replace(?o2, "M","hasM") AS ?o3)

BIND(replace(?o3, "C","hasC") AS ?o4)

} LIMIT 1}

bind(IF(?o4 = "hasMortonStadium",?count1, (IF(?o4 = "hasCoastRoad",?coun2,(IF(?o4 = "hasCastleknock",?coun3,0))))) as ?count)

FILTER(?time > 8 && ?time < 20)

}ORDER BY DESC(?count) LIMIT 2