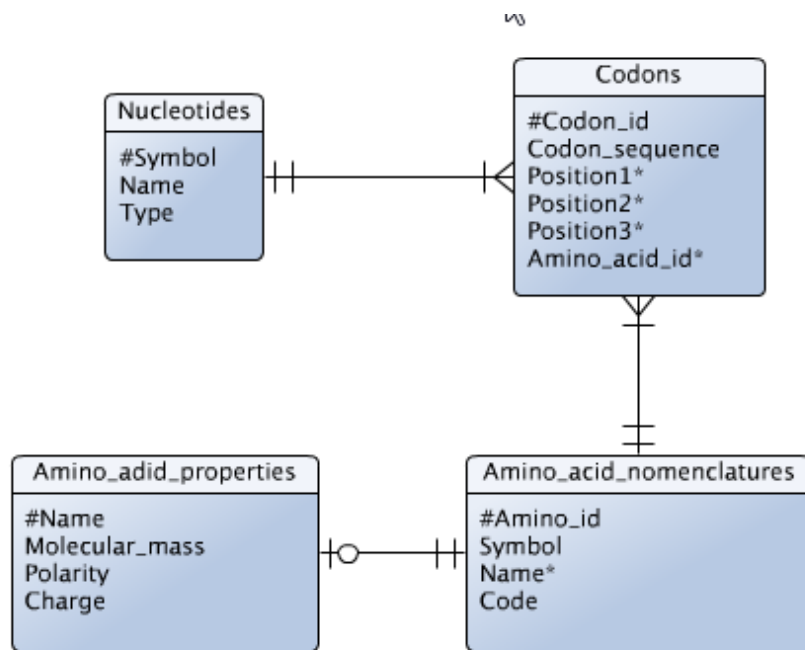
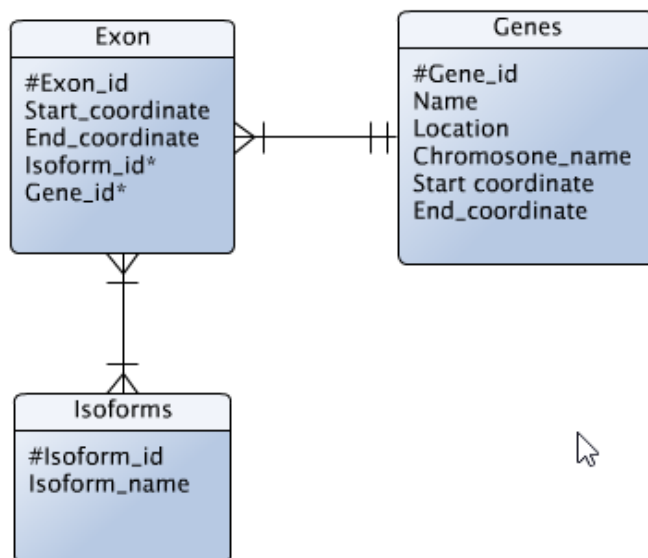


1)



2 i) Exon, Genes, Isoforms

ii)



iii)

Exon(#Exon\_id,Start\_coordinate,End\_coordinate,Isoform\_id\*)

Genes(#Gene\_id,Name,Location,Chromosome\_name\*,exon\_id\*)

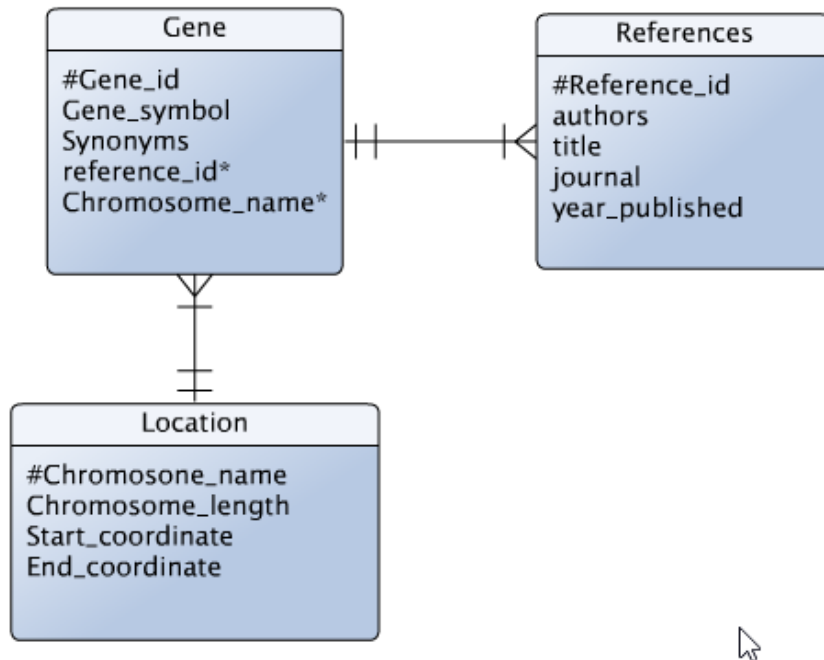
Chromosome(#Chromosome\_name,start coordinate,end\_coordinate)

Isoforms(#Isoform\_id,Isoform\_name)

3 i)

Entities: Gene, Location, references

ii)



iii)

Gene(#Gene\_id\*, Official name, Reference\_id\*,chromosome\_name\*)

Location(#Chromosome\_name,Chromosome\_length, Start\_coordinate, End\_coordinate)

References(#Reference\_id\*,title,journal,year\_published)

Synonyms(#Gene\_id, Gene\_symbols)

Authors(#Reference\_id, Author\_name)

iv)

Gene(#Gene\_id\*, Official name, Reference\_id\*,chromosome\_name\*)

Location(#Chromosome\_name, Start\_coordinate, End\_coordinate)

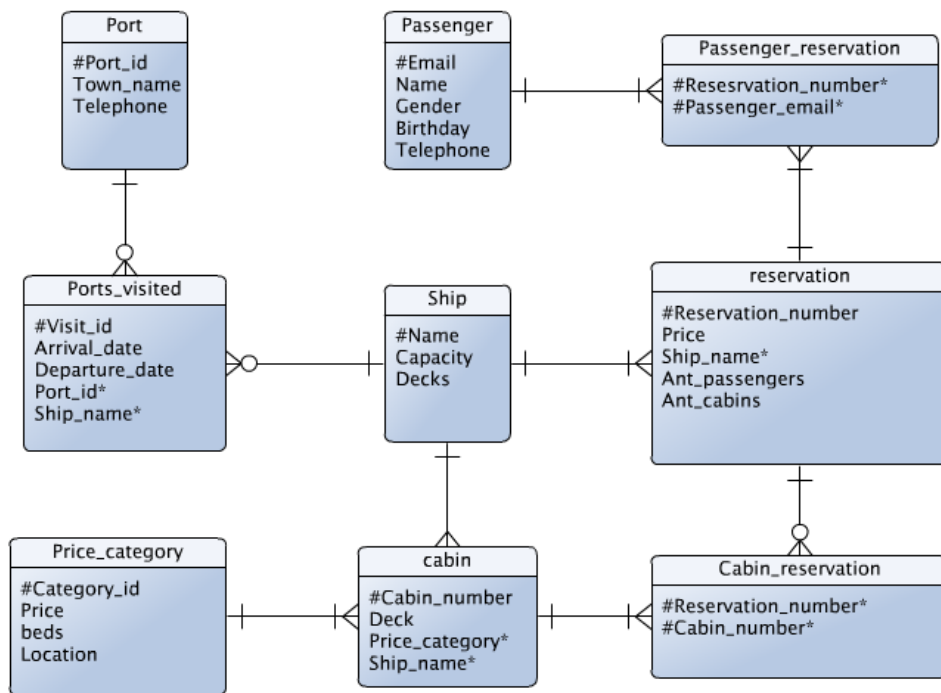
References(#Reference\_id\*,title,journal,year\_published)

Synonyms(#Gene\_id, Gene\_symbols)

Authors(#Reference\_id, Author\_name)

Chromosome(#Chromosome\_name,Chromosome\_length)

4 )



5

i) You get a many to many relationship when a truck gets new assignments

ii) Registration\_number → Registration\_year

Model → Maximum\_weight

iii) Registration\_number

iv)

Container\_type( #Type\_name, Max\_weight ,Cubic\_quantity ,Nightly rate)

Container ( #Container\_number, Type\_name\*)

Assignment(#Assignment\_number, Customer\_id\*, Start\_date, End\_date)

Truck(#registration\_number, Registration\_year, Assignment\_number\*, Model\*)

Truck\_model(#model, Maximum\_weight)