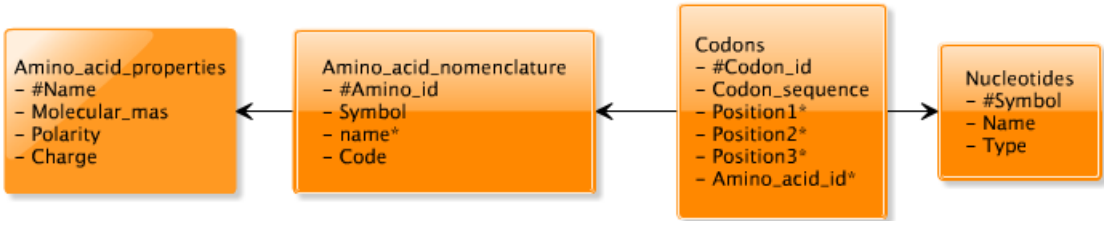
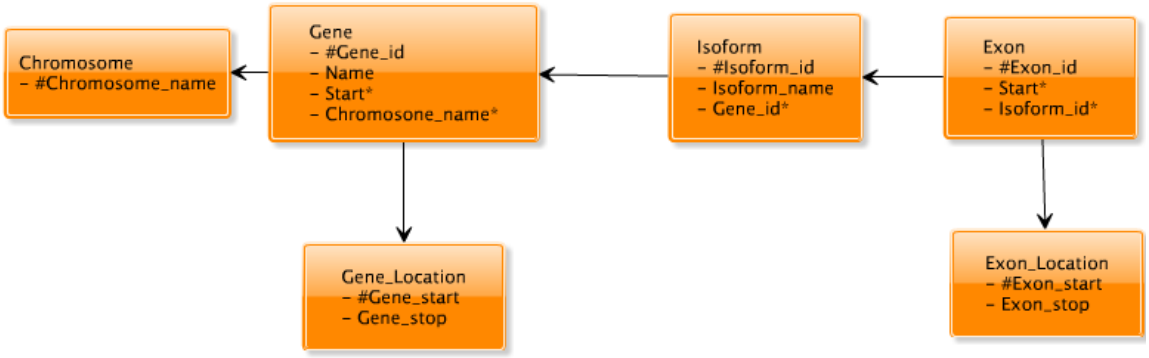
1)




2)

i) Entities: Gene, Exon, Isoform, Chromosome, Gene_location and Exon_location.

ii)




iii)

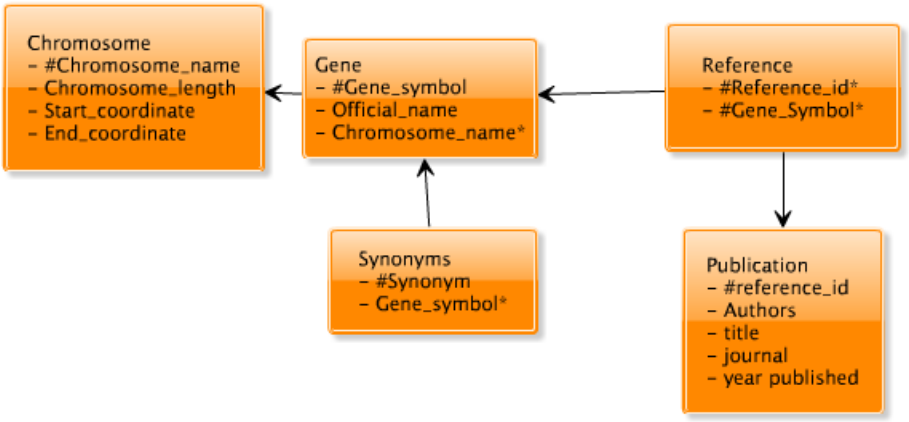
Chromosome(#Chromosome_name)
Gene(#Gene_id,Name,Start*,Chromosome_name*)
Gene_Location(#Gene_start,Gene_stop)
Isoform(#Isoform_id,Isoform_name,Gene_id*)
Exon(#Exon_id,Start*,Isoform_Id*)
Exon_Location(#Exon_start,Exon_stop)

3)

i) Gene, Synonym, Chromosome, Reference, Publication.

ii)

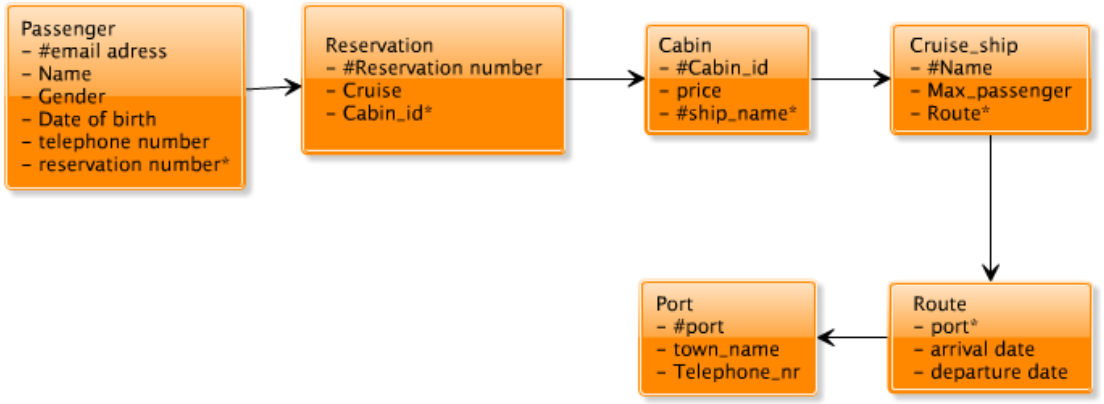
ii)




iii)
Chromosome(#Chromosome_name,Chromosome_length,Gene_symbol*,Start_coordinate,End_coordinate)
Gene(#Gene_symbol,Official_name)
Reference(#Reference_id*,#Gene_symbol*)
Publication(#reference_id,Authors,title,journal,year_published)
Synonyms(#synonyms,gene_symbol*)

iv)
Chromosome(#Chromosome_name,Chromosome_length,Gene_symbol*,Start_coordinate,End_coordinate)
Gene(#Gene_symbol,Official_name)
Reference(#Reference_id*,#Gene_symbol*)
Publication(#reference_id,Authors,title,journal,year_published)
Synonyms(#synonyms,gene_symbol*)

4)




5)

i) The truck table has no primary key.

ii)
Registration_number → Registration_year
Registration_number → Model
Registration_number → Maximum_weight
Model → Maximum_weight

iii) Registration_number

iv)

Container_type (#Type_id, Type_name, Max_weight, Cubic_quantity, Nightly_rate)
Container (#Container_number, Type_id*)
Customer (#Telephone_number, Address)
Assignment (#Assignment_number, Telephone_number*, Container_number*, Start_date, End_date)
Truck (#Registration_number, Registration_year, Model*, Assignment_number*)
Truck_info(#Model, Maximum_weight)