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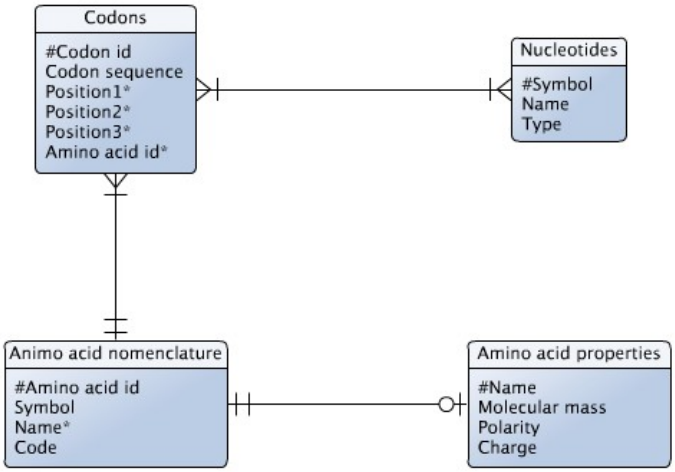
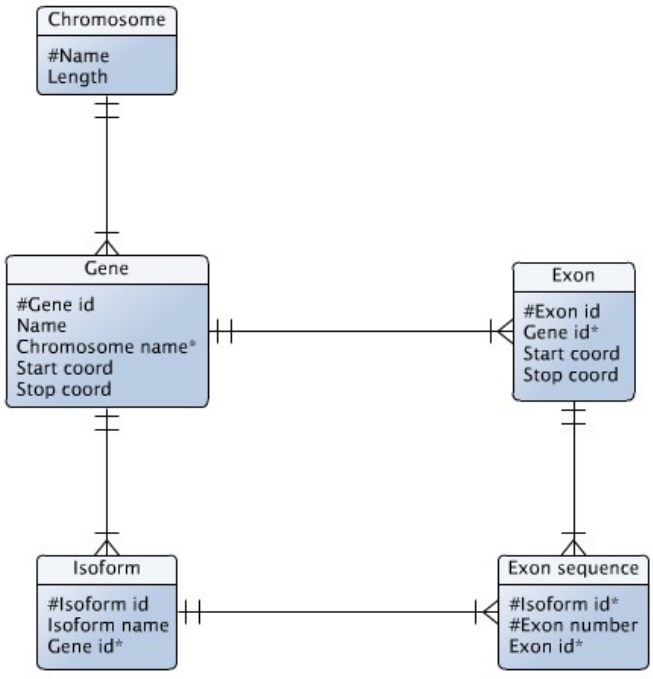
Oppgave 1:



Oppgave 2:

i) The entities in the database description are Chromosome, Gene, Exon, Exon sequence and Isoform.

ii)



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iii)
Chromosome(#Name, Length)

Gene(#Gene_id, Name, Chromosome_name*, Start_coord, Stop_coord)

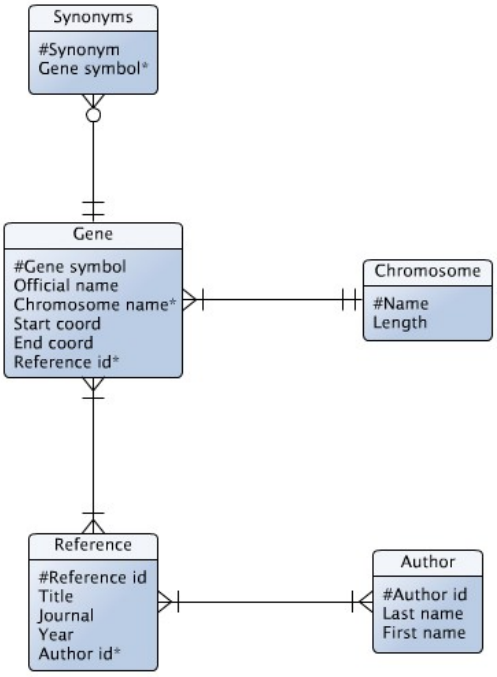
Exon(#Exon_id, Gene_id*, Start_coord, Stop_coord)

Isoform(#Isoform_id, Name, Gene_id*)

Exon_sequence(#Isoform_id*, #Exon_number, Exon_id*)

Oppgave 3:
i) The entities in the database description are Synonyms, Gene, Chromosome, Reference and Author.

ii)



iii)
Chromosome(#Name, Length)

Reference(#Reference_id, #Author_id, Author_name, Author_birthdate, Title, Journal, Year)

Gene(#Gene_symbol, Official_name, Reference_id*, Author_id*, Chromosome_name*, Start_coord, End_coord)

Synonym(#Synonym, Gene_symbol*)

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iv)
Chromosome(#Name, Length)

Gene(#Gene_symbol, Official_name, Chromosome_name*, Start_coord, End_coord)

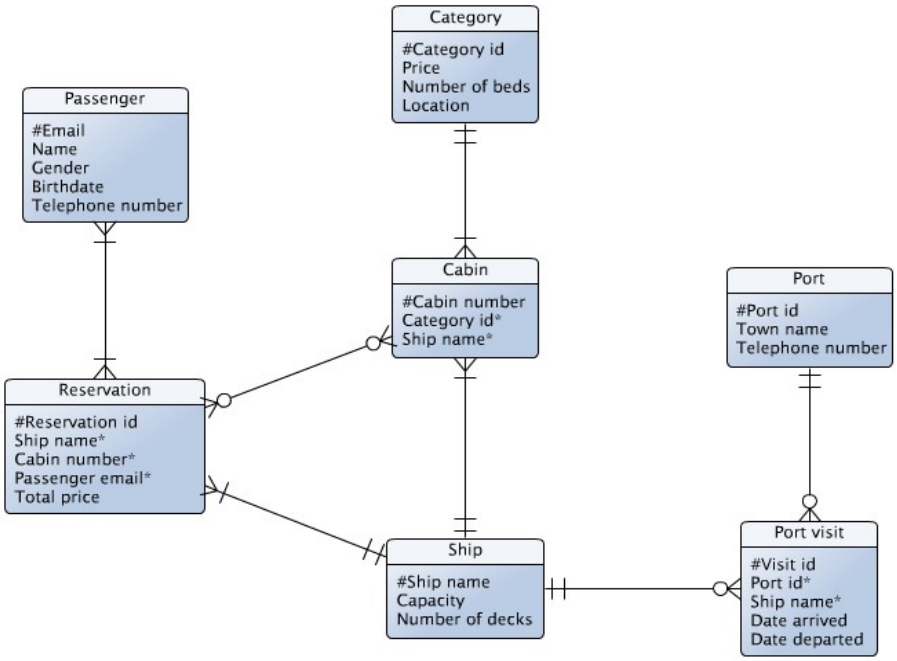
Gene_referenced(#Reference_id*, #Gene_symbol*, Synonym_used)

Reference(#Reference_id, Title, Journal, Year)

Author_contribution(#Reference_id*, #Author_id*, Contribution)

Author(#Author_id, First_name, Last_name)

Oppgave 4:



Oppgave 5:
i) Because it would result in a many-to-many relation between Truck and Assignment. Maximum_weight also has a dependency on the Model of truck, while Registration_year has a dependency on the Registration_number. This will cause the table to contain transitive dependencies.

ii) Registration_number -> Registration_year
Model -> Maximum_weight

iii) Registration_number

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iv)
Container_type(#Type_name, Max_weight, Cubic_quantity, Nightly_rate)

Container(#Container_number, Type_name*)

Assignment(#Assignment_number, Customer_id*, Container_number*, Start_date, End_date)

Assigned_trucks(#Assignment_number*, #Registration_number*, Assigned_task)

Truck(#Registration_number, Registration_year, Model*)

Truck_model(#Model, Max_weight, Nightly_rate)