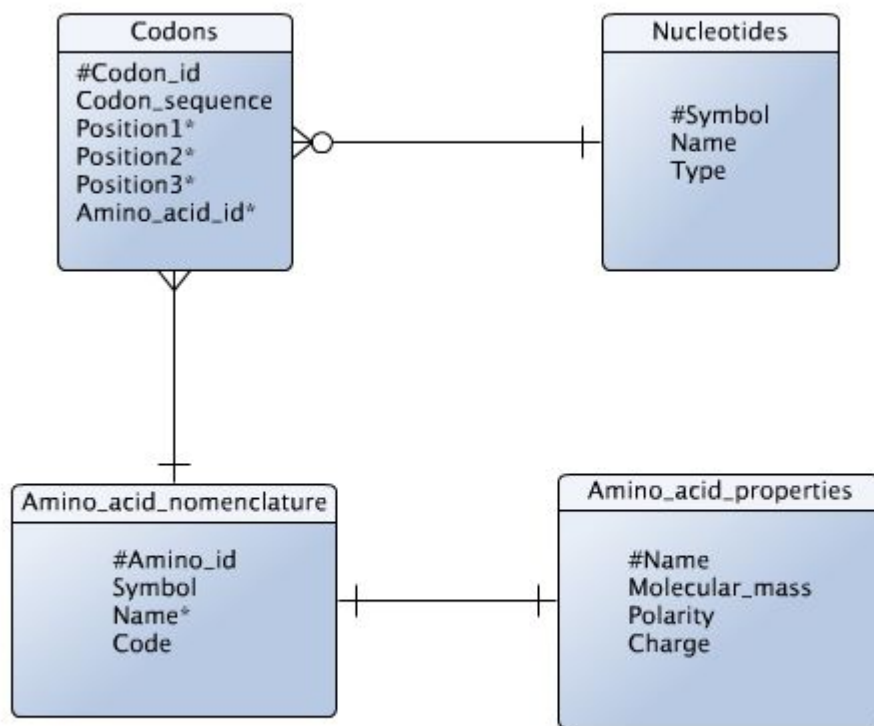


INF115 Compulsory Exercise 2

11.04.2016

pth002

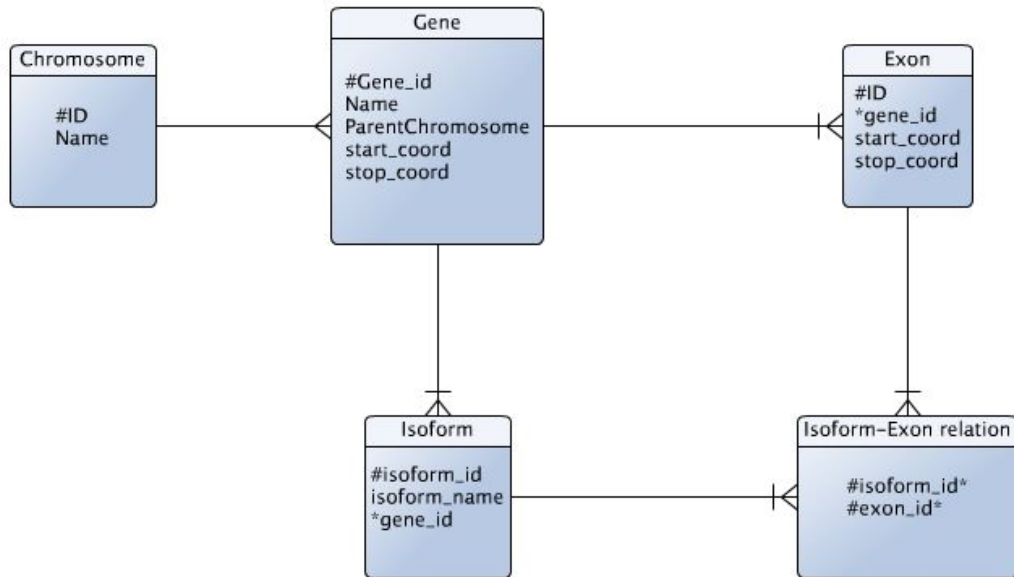
Assignment 1)



Assignment 2)

i)

The entities are Gene, Exon, Isoform and Chromosome.



iii)

Gene(#gene_id, name, *parent_chromosome, start_coord, stop_coord)

Chromosome(#id, Name)

Exon(#exon_id, *gene_id, start_coord, stop_coord)

Isoform(#isoform_id, isoform_name, *gene_id)

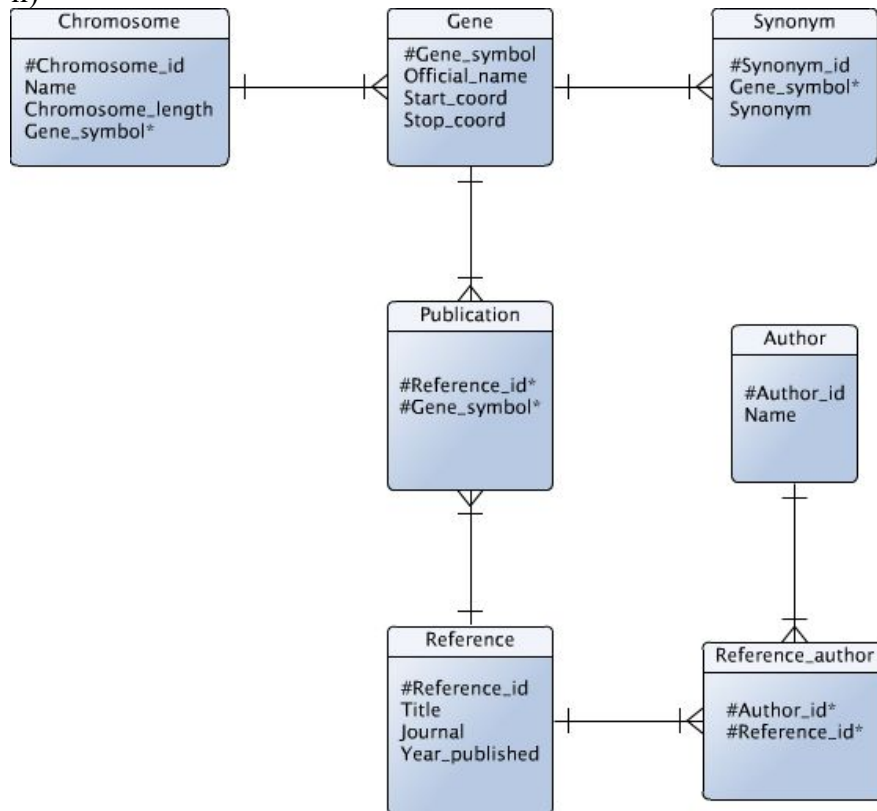
Isoform_Exon_relation(#isoform_id*, #exon_id*)

Assignment 3)

i)

The entities are Synonym, Reference, Publication, Gene and Chromosome.

ii)



iii)

Synonym(#Synonym_id, Gene_symbol*, Synonym_name)

Gene(#Gene_symbol, Official_name, Start_coord, Stop_coord, Chromosome_id, Chromosome_length)

Publication(#Reference_id*, #Gene_symbol*)

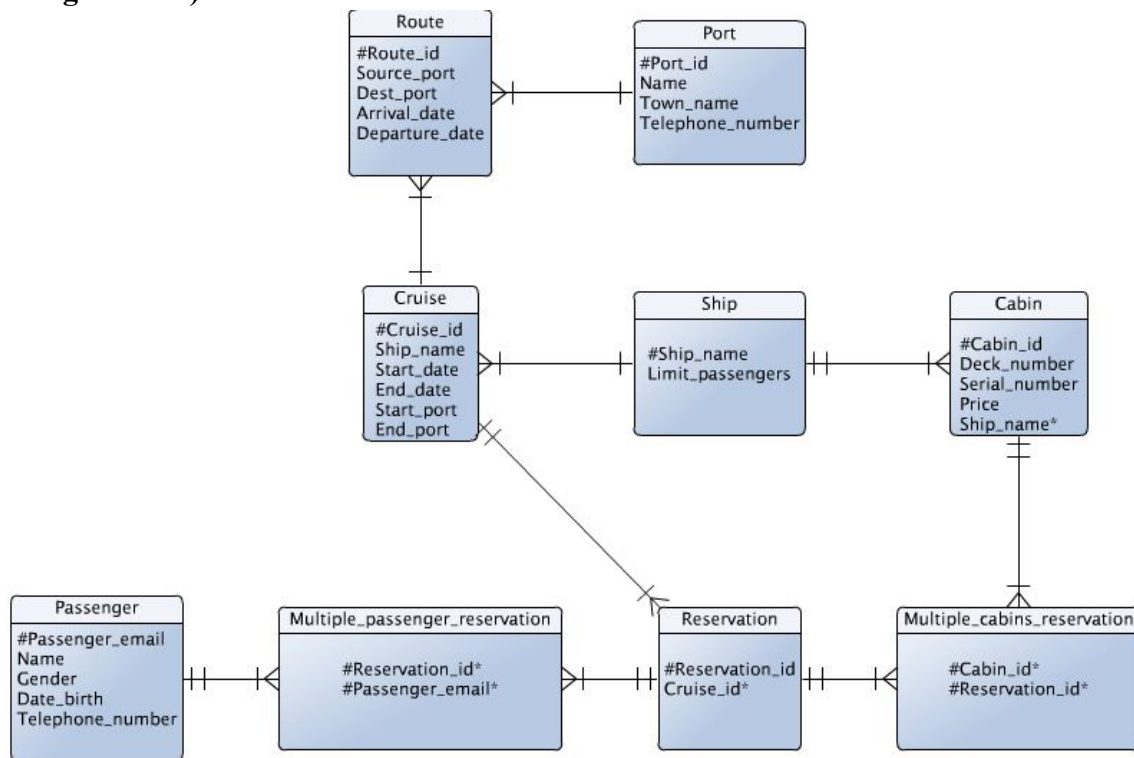
Reference(#Reference_id, Title, Journal, Year_published)

Reference_author(#Author_id*, #Reference_id*)

Author(#Author_id, Name)

iv)

Assignment 4)



Assignment 5)

i)

The table Truck does not have a primary key and there are several dependencies.

ii)

The functional dependencies are:

-Registration_year and Assignment_number depends on Registration_number

-Maximum_weight depends on Model.

iii)

Candidate keys:

-Model

-Registration number

iv)