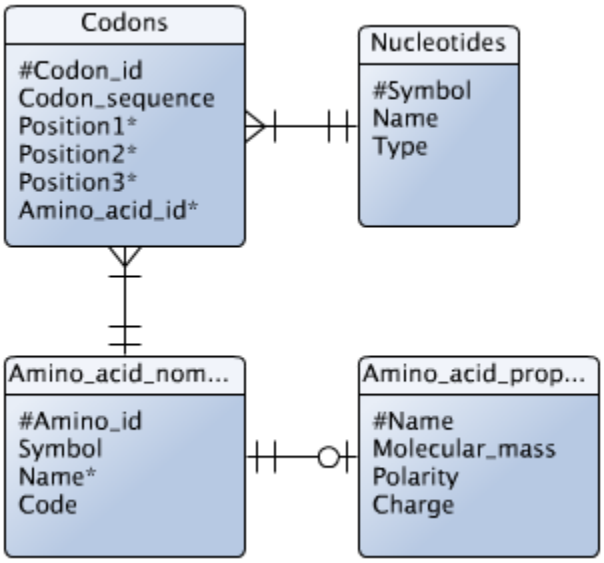
Inf115

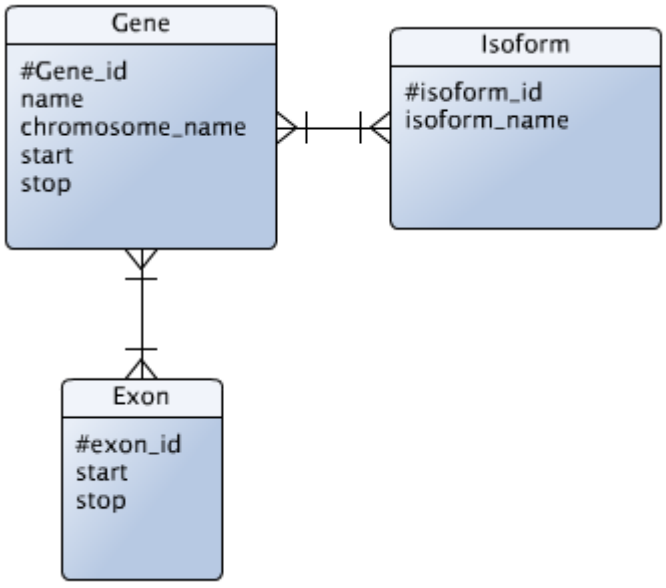
1



2

i) Genes, Exons, Isoforms

ii)

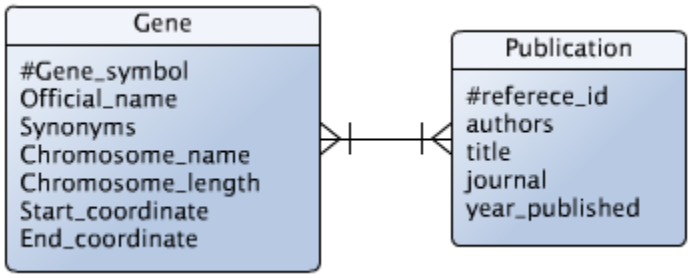


iii) Gene(#gene_id, name, chromosome_name, start, stop)
GeneIsoformX(#gene_id*, #isoform_id*) (multiple column primary key)
Isoform(#isoform_id, isoform_name)
GeneExonX(#gene_id*, #exon_id*) (multiple column primary key)
Exon(#exon_id, start, stop)

3

i) Gene, Publication

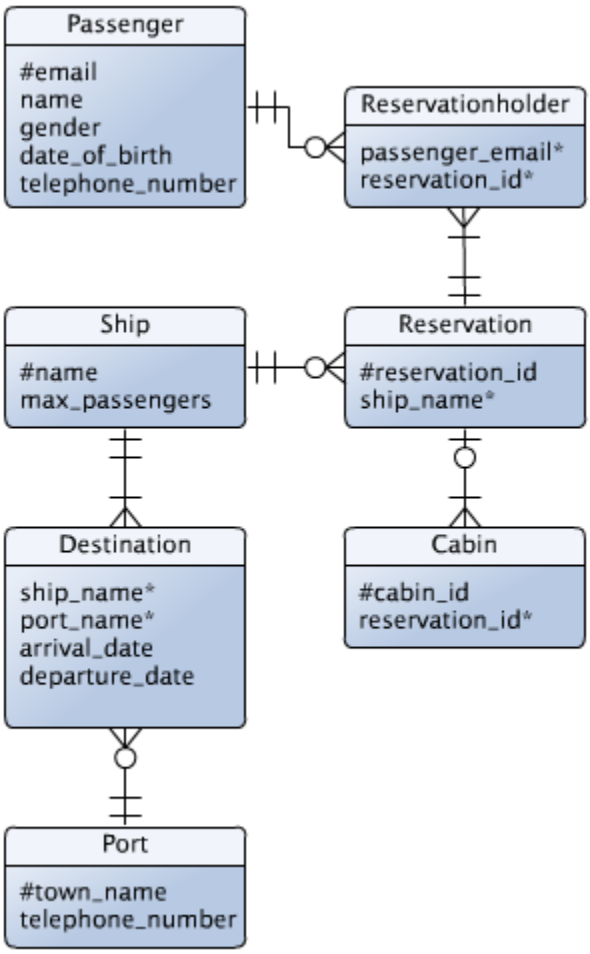
ii)



iii) Gene(#gene_symbol, official_name, synonyms, chromosome_name, chromosome_length, start_coordinate, end_coordinate)
GenePublicationX(#reference_id*, #gene_symbol*) (multiple column primary key)
Publication(reference_id, authors, title, journal, year_published)

iv) Gene(#gene_symbol, official_name, chromosome_name*, start_coordinate, end_coordinate)
Synonym(#name, gene_symbol*)
Chromosome(#chromosome_name, chromosome_length)
GenePublicationX(#reference_id*, #gene_symbol*) (multiple column primary key)
Publication(#reference_id, authors, title, journal, year_published)

4



5

i) .

ii) Maximum_weight is dependent on truck model.

iii) Registration_number is a candidate key for the truck table, as is any combination of registration number and other attribute(s). The logical choice for a primary key is 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*)
TruckModel(#Model, Maximum_weight)