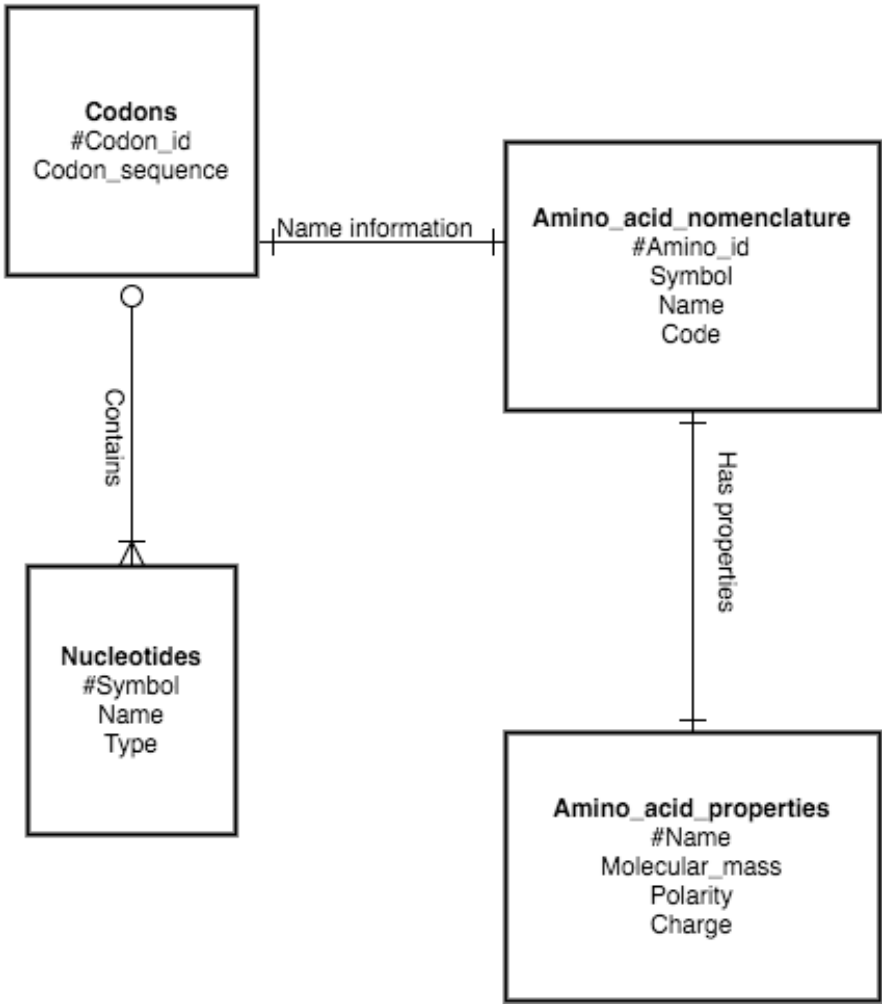
INF115 Oblig 2

Studentnummer: 226286

1)



2)

i) The entities according to the description could be Gene, Exon, Isoform and Location.

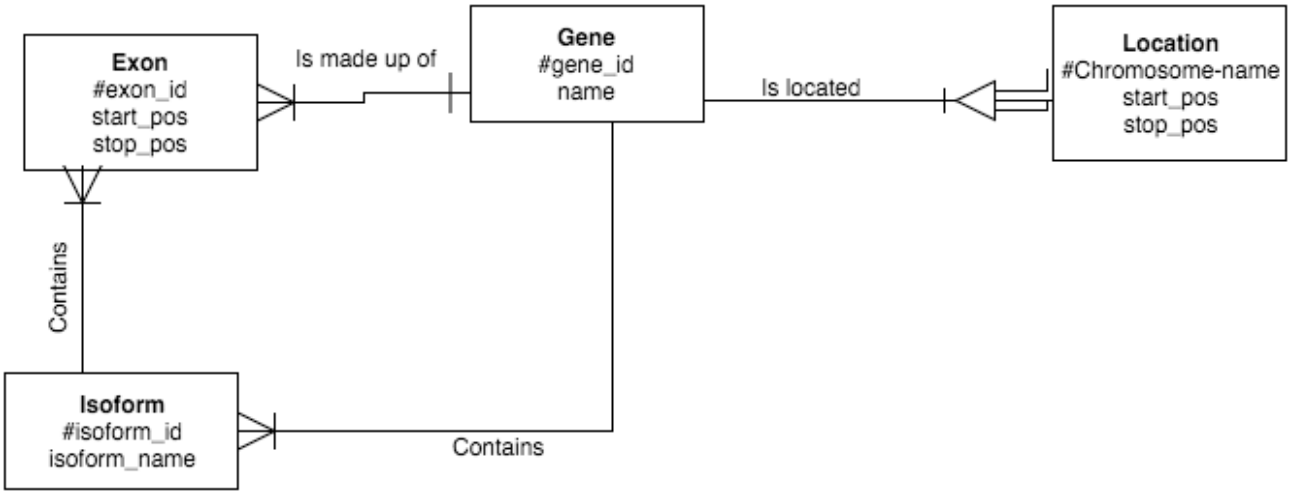
ii)

iii)

Gene(#gene_id, name)

Exon(#exon_id, start_pos, stop_pos, gene_id*)

Isoform(#isoform_id, isoform_name, exons_ids*)

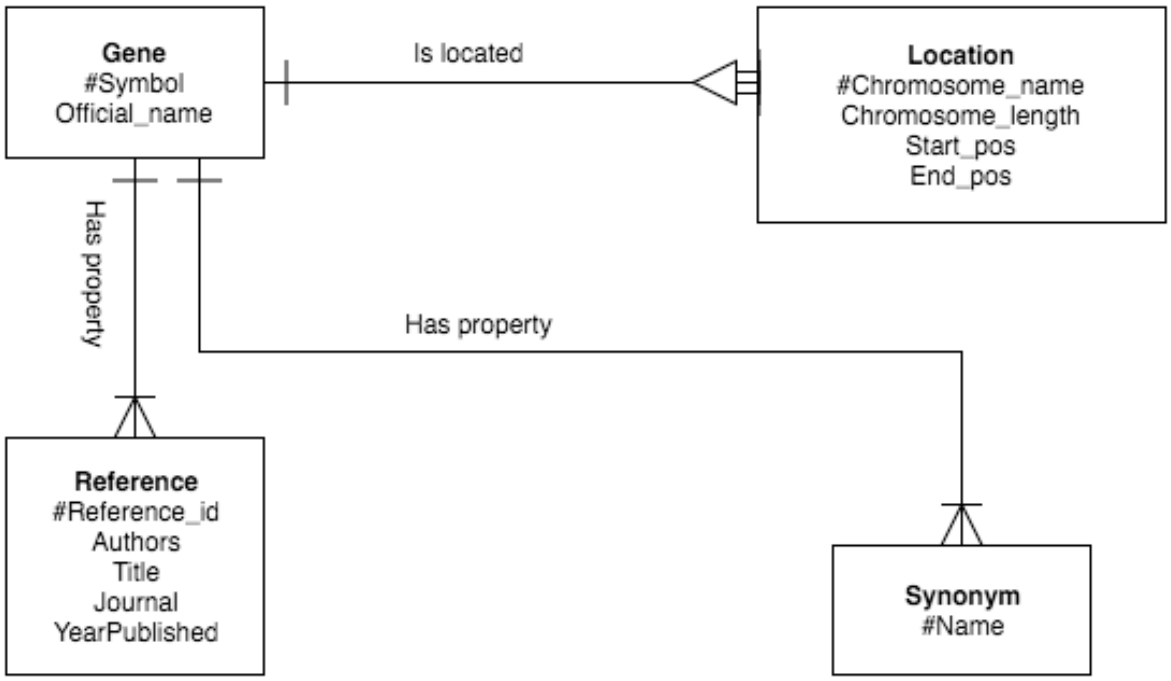


Location(#gene_id*, #Chromosome_name, start_pos, stop_pos)

3

i) The entities according to the description could be Gene, Location, Reference and Synonym.

ii)



iii)

Gene(#Gene_Symbol, Official_Name, Chromosome_name, Chromosome_length, Start_pos, End_pos, #Synonym, Authors, Title, Journal, Year_Published)

iv)

Gene(#Gene_Symbol, Official_Name)

Location(#Chromosome_name*, #Gene_symbol*, Start_pos, End_pos)

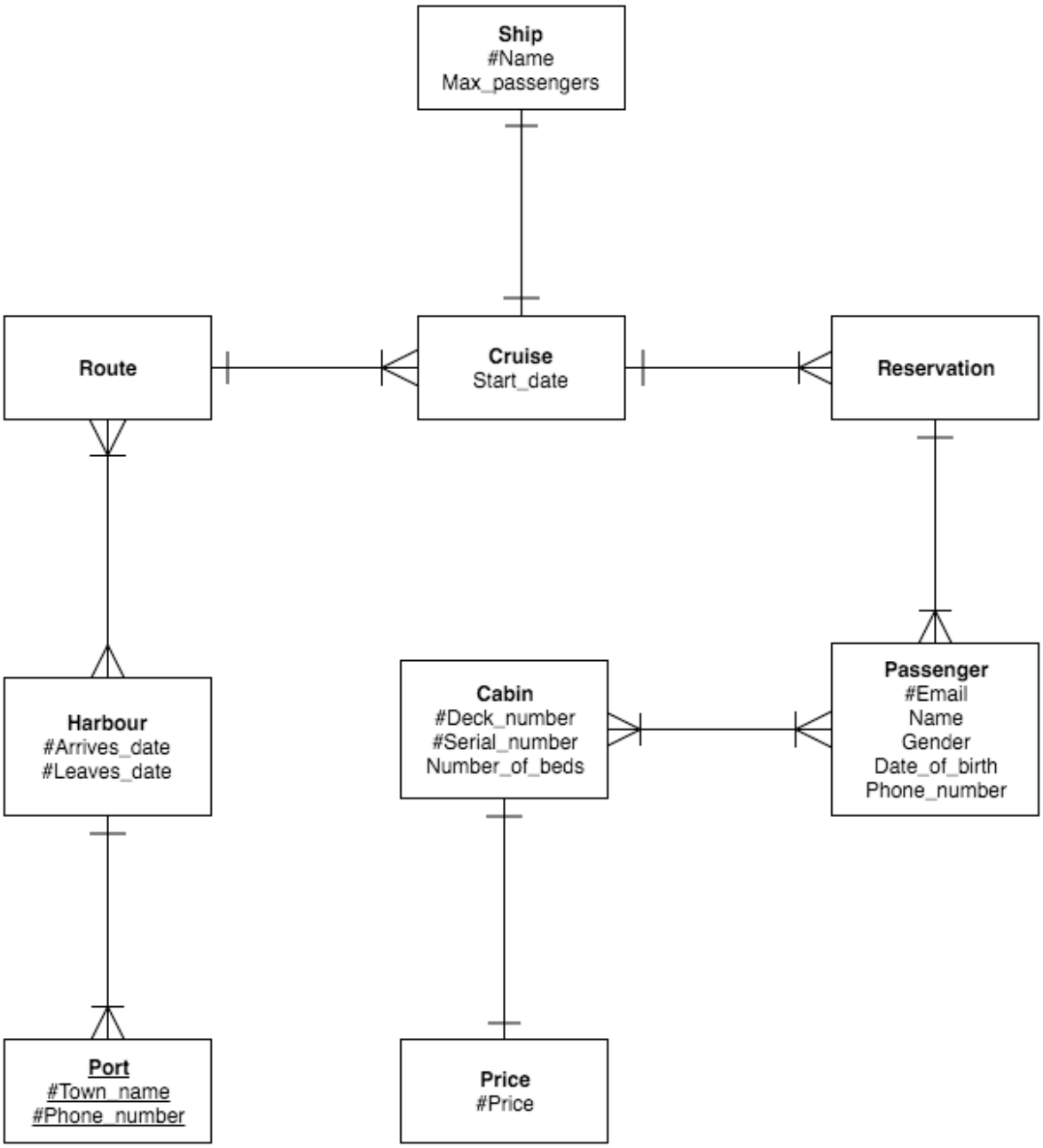
Chromosome(#Chromosome_name, Chromsome_length)

Synonym(#Name, Gene_symbol*)

Reference(#Reference_id, Authors, Title, Journal, Year_published)

GeneReference(#Reference_id*, #Gene_symbol*)

4



5

i) There is no marked primary key in the truck table.

ii) The functional dependencies for the truck table is:

Registration_number -> Registration_year
Model -> Maximum_weight

iii) The only candidate key in the truck table is Registration_number. This is because this is the only unique entry that will determine the rest of the table.

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*, Model_id*, Assignment_number*)

Model(#Model_id, Maximum_weight)

Register(#Registration_number, Registration_year)