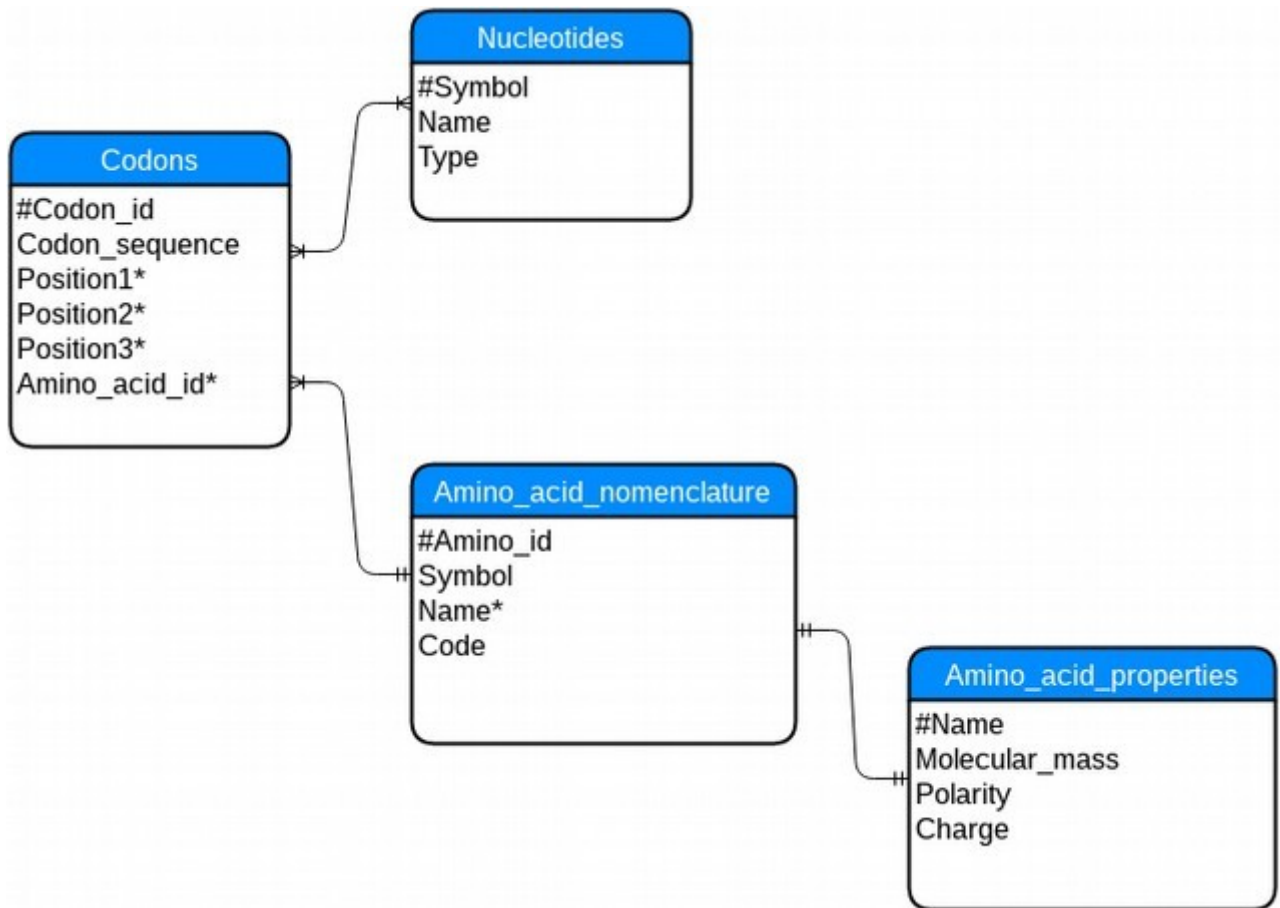# INF115 Compulsory Exercise 2
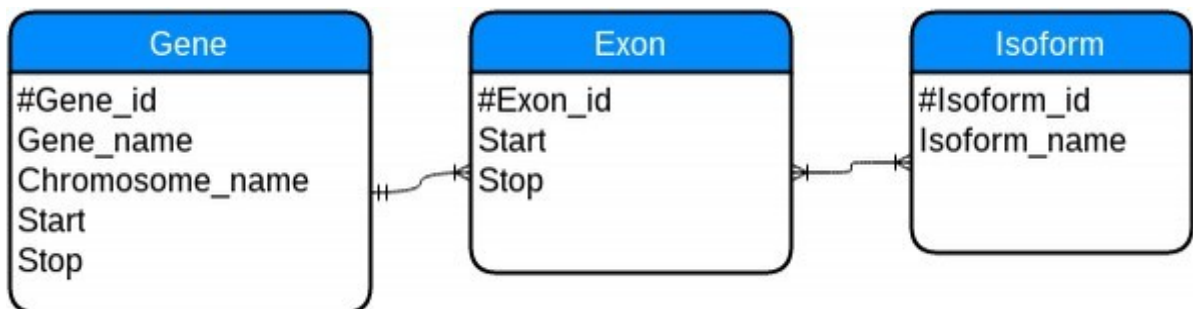
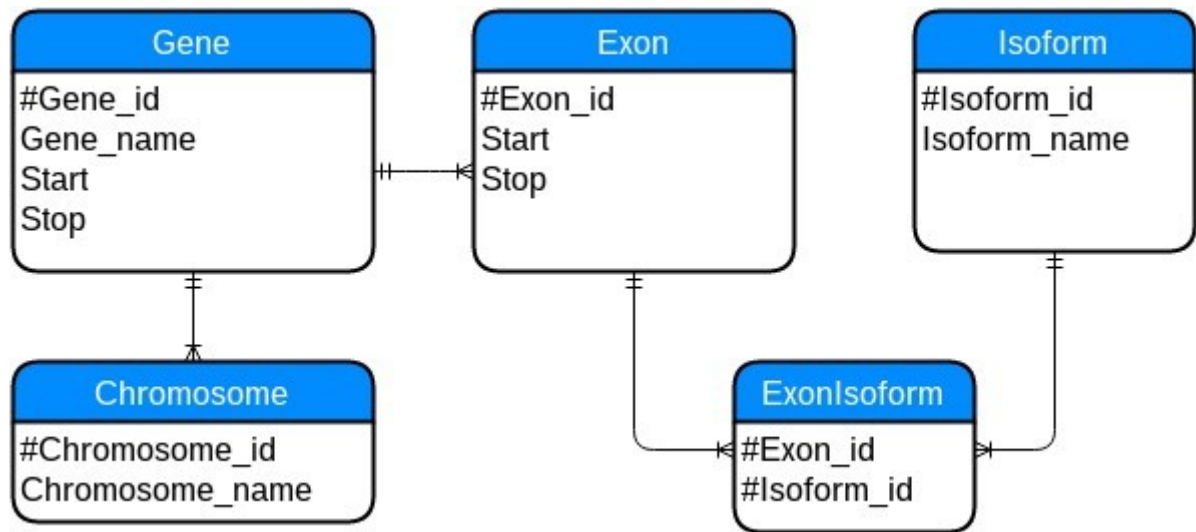**1)**

2.i)

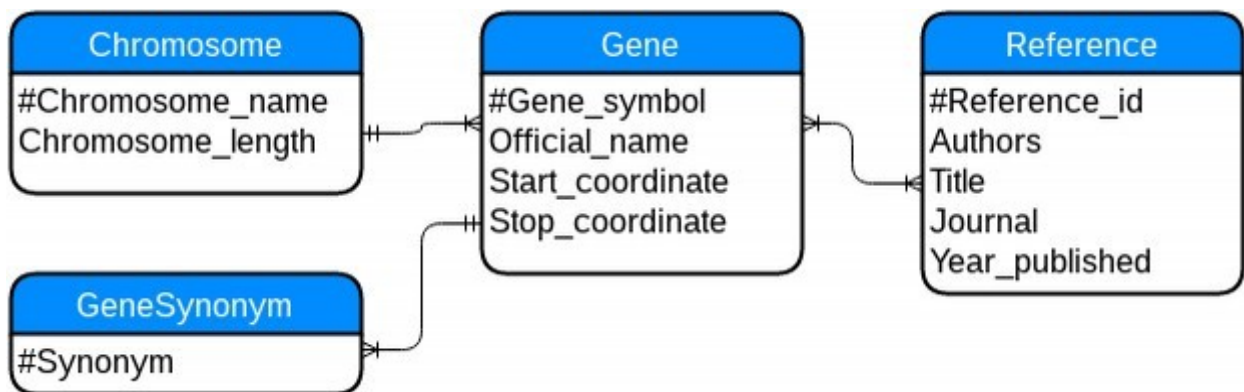Gene, Exon and Isoform

2.ii)

2.iii)

3.i)

Gene, GeneSynonym, Chromosome and Reference.

3.ii)

3.iii)

GeneSynonym(<u>Synonym</u>, Gene_symbol*)
Gene(<u>Gene_symbol</u>, Chromosome_name, Chromosome_length, Official_name, Start_coordinate, Stop_coordinate)
GeneReference(<u>Gene_symbol*, Reference_id*</u>, Year_published)
Reference(<u>Reference_id</u>, Authors, Title, Journal)

3.iv)

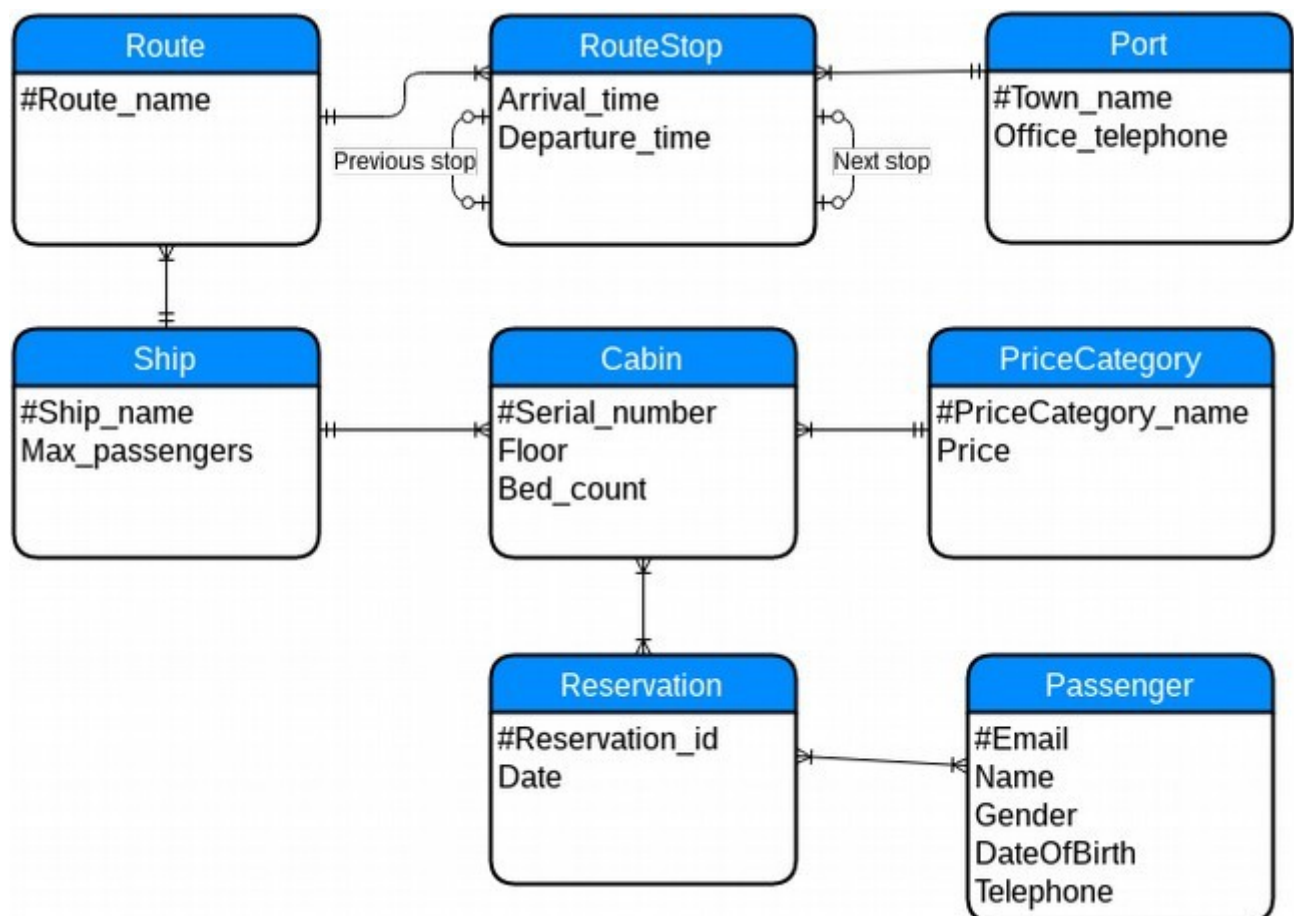Chromosome(<u>Chromosome_name</u>, Chromosome_length)
GeneSynonym(<u>Synonym</u>, Gene_symbol*)
Gene(<u>Gene_symbol</u>, Chromosome_name*, Official_name, Start_coordinate, Stop_coordinate)
GeneReference(<u>Gene_symbol*, Reference_id*</u>)
Reference(<u>Reference_id</u>, Authors, Title, Journal, Year_published)

4)

5.i)

The database can only show what each truck is assigned to at the moment, and not the history of assignments the truck has had in the past. So for each assignment, we lose the last assignment because we have to overwrite the Assignment_number.

5.ii)

Registration_number → Registration_year
Registration_number → Model
Registration_number → Maximum_weight
Registration_number → Assignment_number

5.iii)

Registration_number and Assignment_number