Inf115 compulsory 2
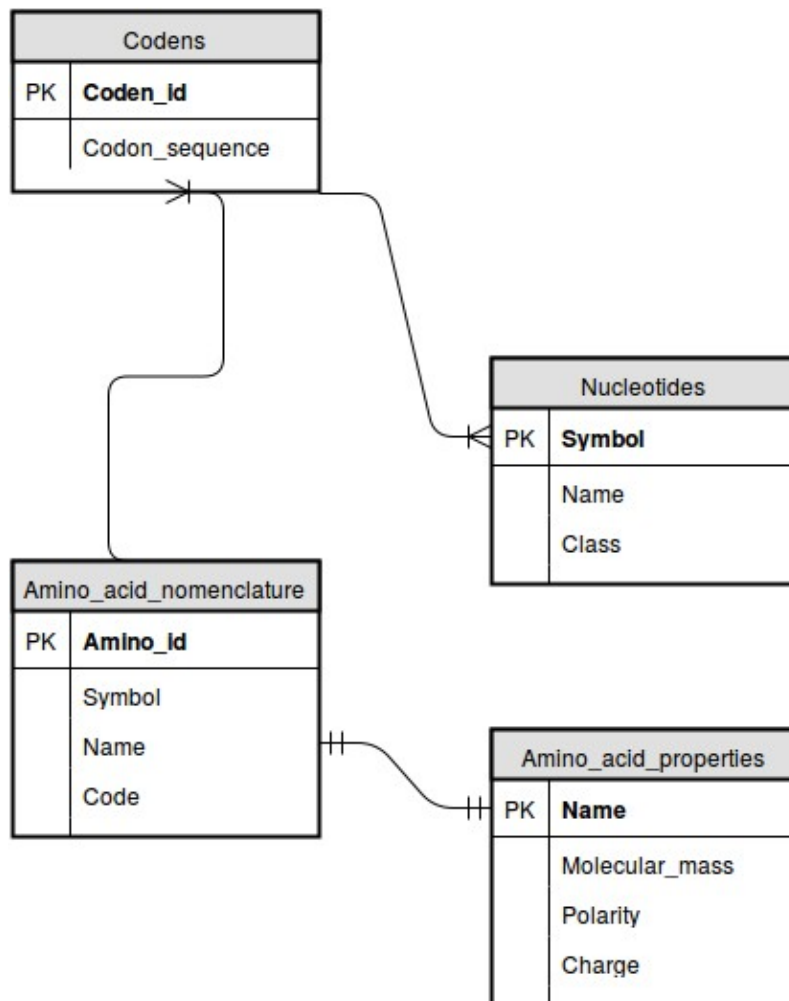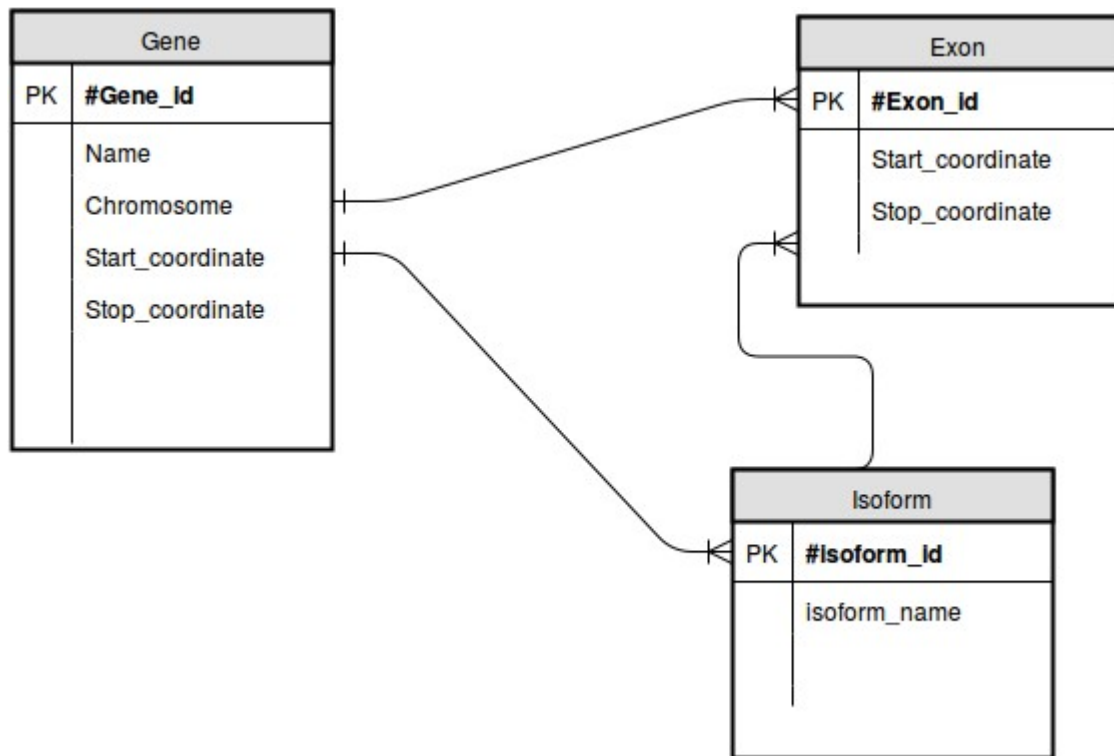Morten Lohne

1:

2a: Gene, Exon, Isoform

2c:
Genes (#Gene_id, Name, Chromsome*, Start_coordinate, Stop_coordinate)
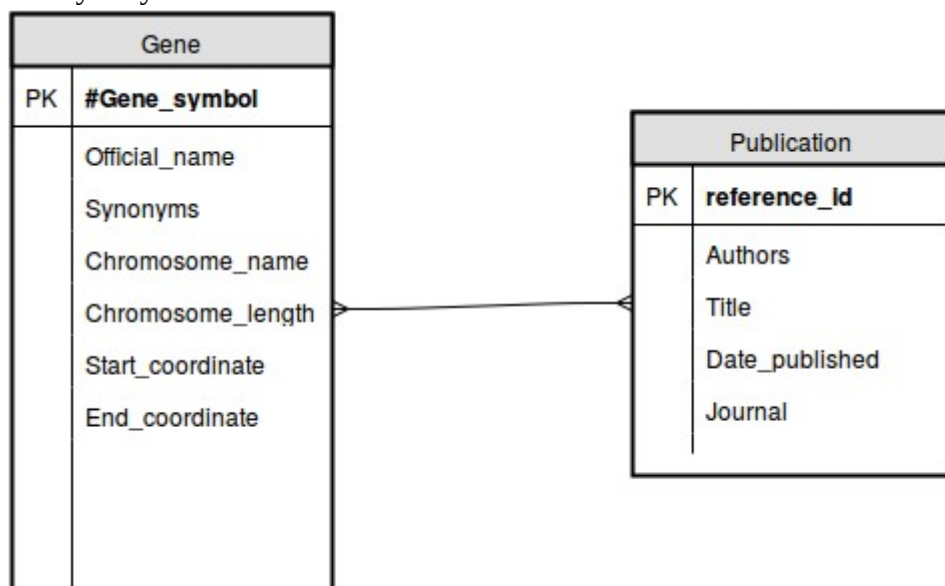Exons (#Exon_id, Start_coordinate, Stop_cordinate, Gene_id*)
Chromsome(#Id, Chromosome_name)
Isoforms (#Isoform_id, Isoform_Name, Gene_id*)
Exon_Isoform_Bridge(#Exon_id*, #Isoform*)

3a: Gene, Publication
3b: Not on 1NF: Synonyms and authors are not atomic.

3c:
Gene(#Gene_symbol, #Official_name, Chromsome_name, Chromsome_length, Start_coordinate, End_coordinate)
Publication(#Reference_id, Title, Journal, Year_published, Publication_authors*)

Publication_authors(#Reference_id, #Author)
Gene_synonyms(#Synonym_name, #Gene_symbol)

3d:
Gene(#Gene_symbol, Chromosome_id*, Start_coordinate, End_coordinate)
Chromosome(#Chromsome_id, Chromosome_name, Chromsome_length)
Gene_synonyms(#Synonym_name, #Gene_symbol)
Publication(#Reference_id, Title, Journal, Year_published,
Publication_authors*)Publication_authors(#Reference_id, #Author)

4: