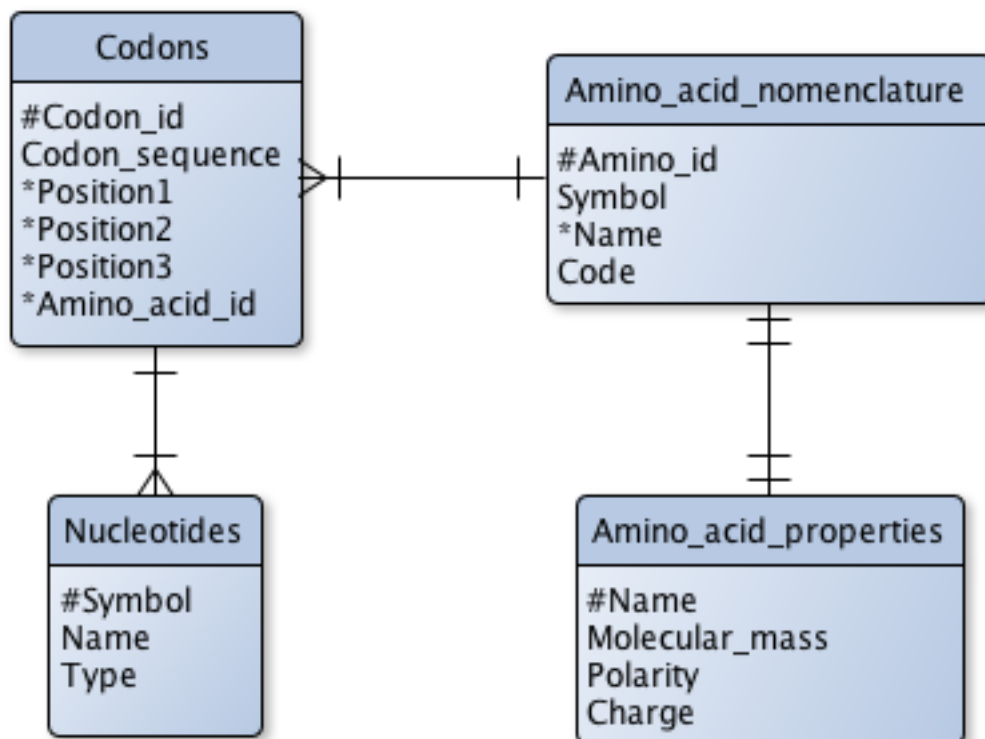# INF115

Compulsory Exercise 2
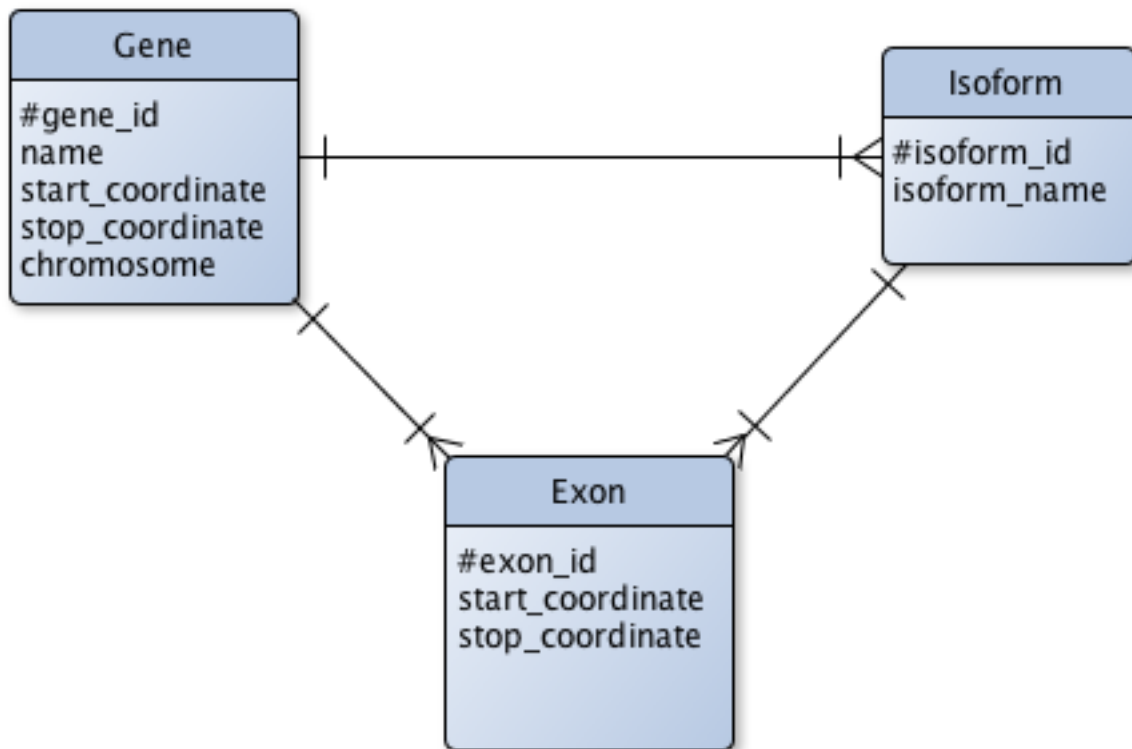
Jan Inge Sande - 10. april 2016

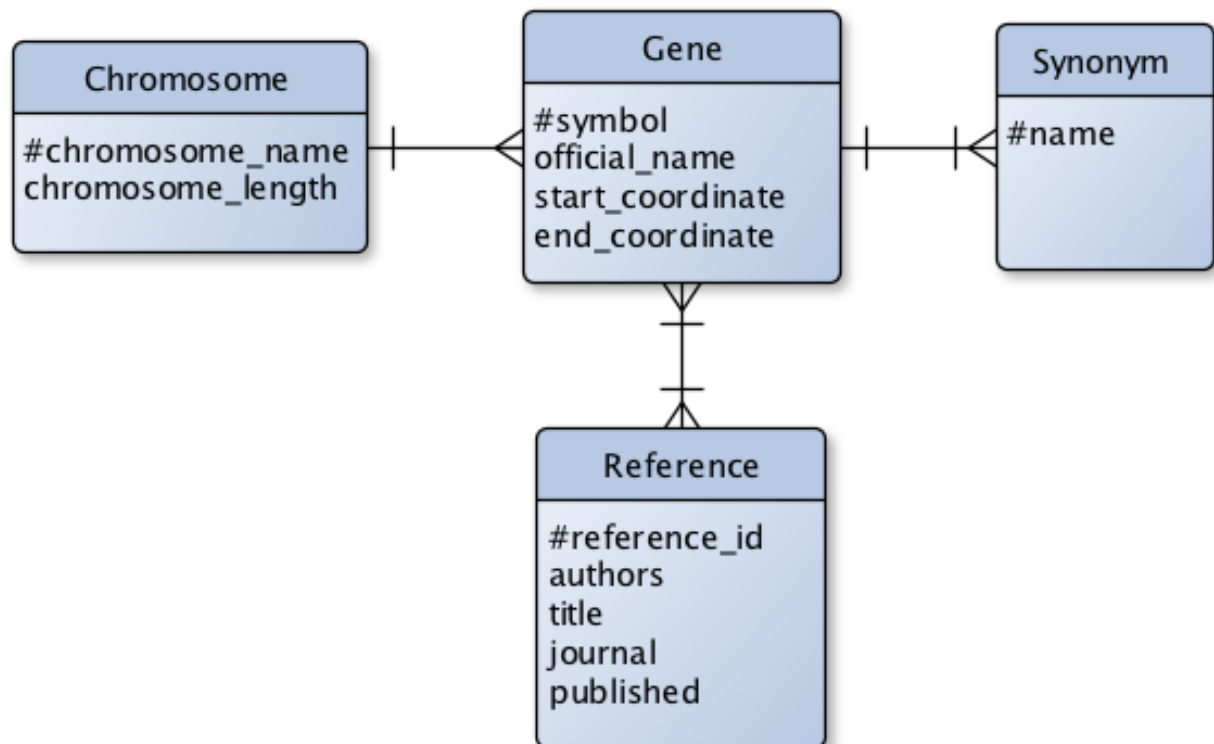**1)**

2)

i)   Gene
    Exon
    Isoform
ii)

iii) Gene(#gene_id,name,start_coordinate,stop_coordinate,chromosome)
    Exon(#exon_id,start_coordinate,stop_coordinate,gene_id*,exon_id*)
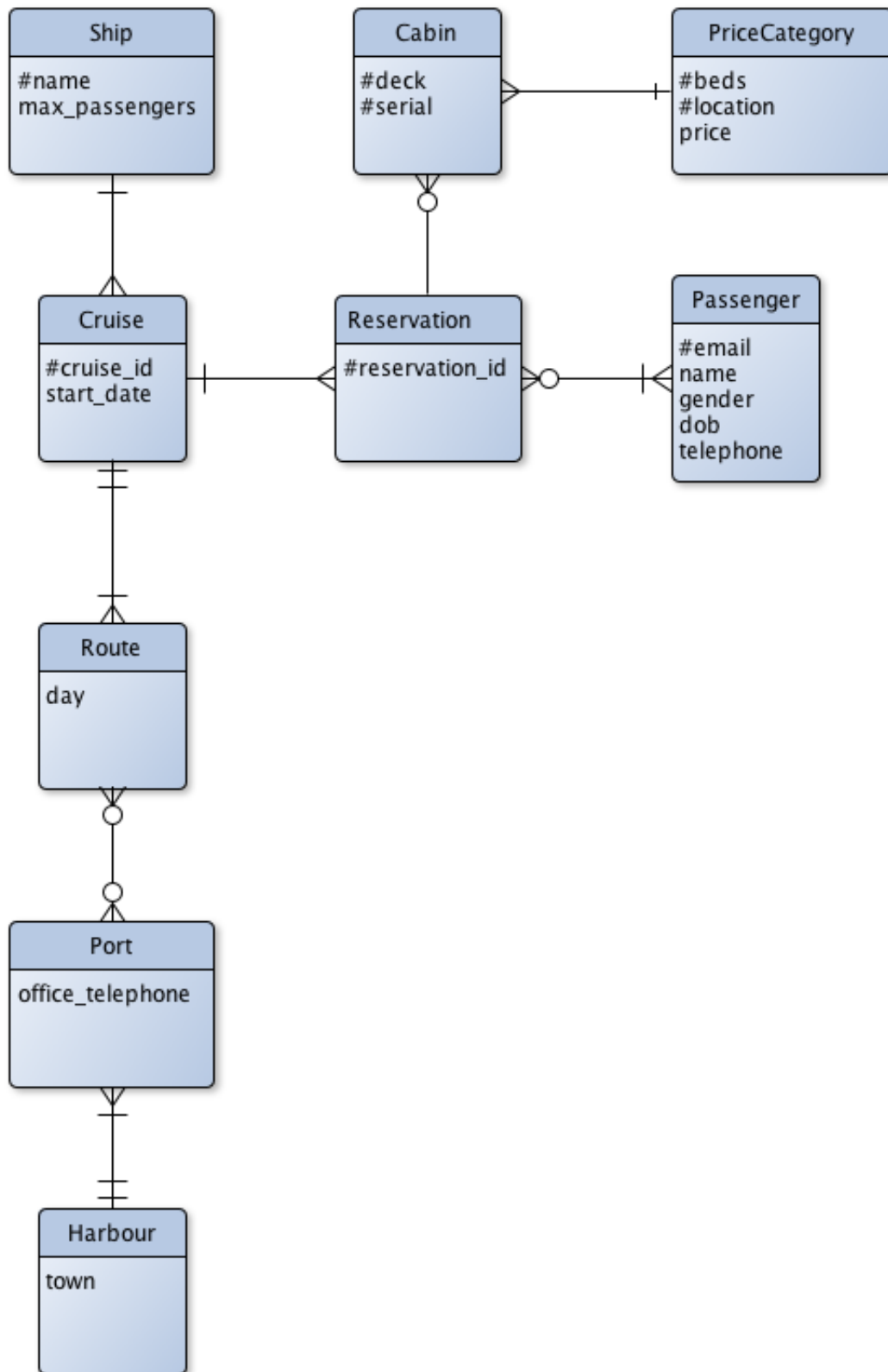   Isoform(#isoform_id,isoform_name,gene_id*)

3)

i) Gene
    Synonym
    Reference
    Chromosome
ii)

iii) Chromosome(#chromosome_name,chromosome_length)
     Gene(#symbol,official_name,start_coordinate,end_coordinate,chromosome_name*,refe
     rence_id*)
     Synonym(#name,symbol*)
     Reference(#reference_id,authors,title,journal,published,symbol*)
iv) Chromosome(#chromosome_name,chromosome_length)
    Gene(#symbol,official_name,start_coordinate,end_coordinate,chromosome_name*,refe
    rence*)
    Synonym(#name,symbol*)
    GeneReference(#symbol,#reference_id)
    Reference(#reference_id,authors,title,journal,published,symbol*)

4)

Ship

#name
max_passengers

Cabin

#deck
#serial

PriceCategory

#beds
#location
price

Cruise

#cruise_id
start_date

Reservation

#reservation_id

Passenger

#email
name
gender
dob
telephone

Route

day

Port

office_telephone

Harbour

town

5)

i) Den nye tabellen vil inneholde redudante data, som fort kan bli inkonsekvent dersom f.eks. en bil får ny registrering eller maksimum vekt justeres. I tillegg vill dette ta opp unødvendig plass/maskinressurser.
ii) Registration_number → Registration_year, Registration_number → Model, Registration_number → Maximum_weight, Registration_number → Maximum_weight
iii) Registration_number
iv) Assignment (#Assignment_number, Telephone_number*, Container_number*,Registration_number*,Start_date, End_date)
Truck (#Registration_number, Registration_year, Model, Maximum_weight)