# INF115 COMPULSORY ASSIGNMENT 2
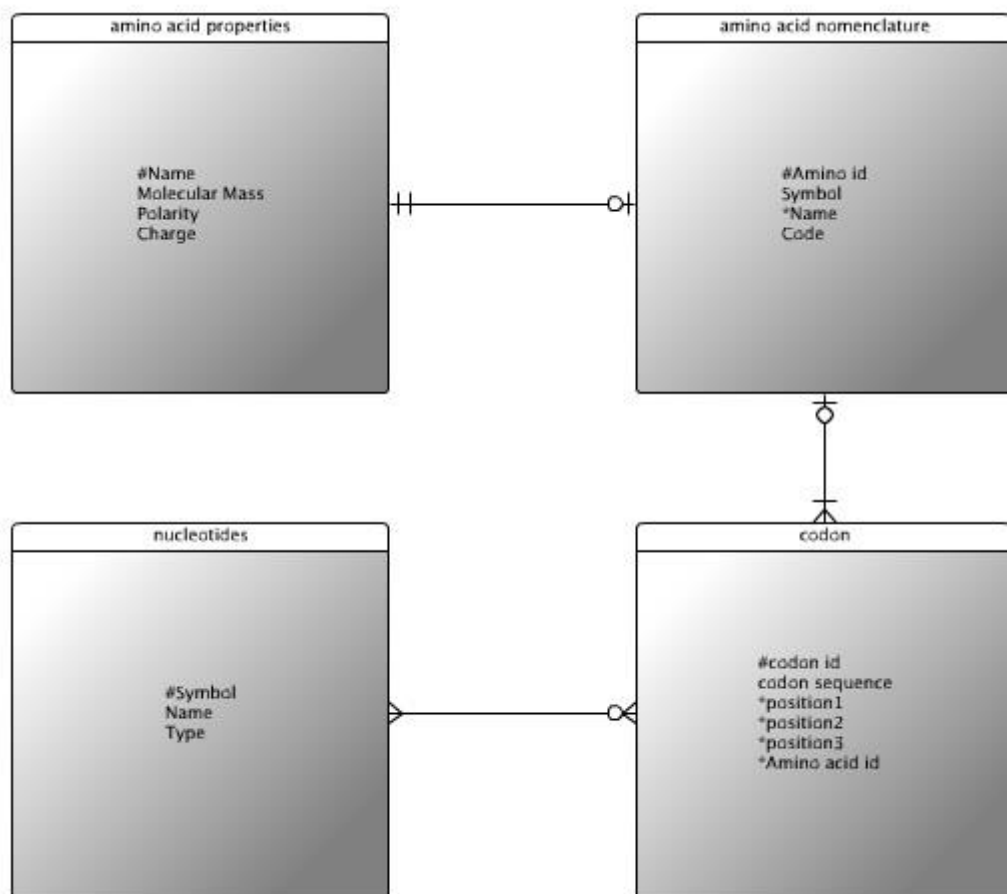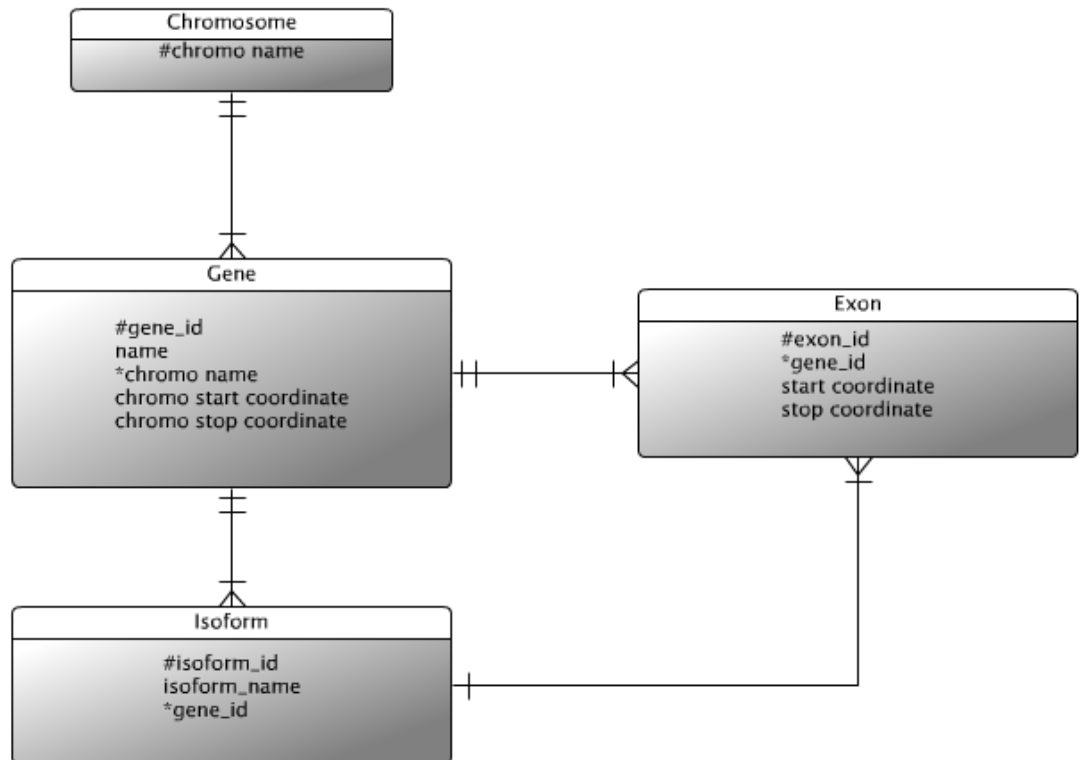
## 11.04.2016

*Student id:  hla019*

1.

2.

    i.  Entries; Chromosome, Gene, Exon and Isoform.

   ii.



**Chromosome**
#chromo name

**Gene**
#gene_id
name
*chromo name
chromo start coordinate
chromo stop coordinate

**Exon**
#exon_id
*gene_id
start coordinate
stop coordinate

**Isoform**
#isoform_id
isoform_name
*gene_id

  iii.  Chromosome (#Chromosome name)
Gene (#Gene id, Gene name, *Chromosome name, start coordinate, stop coordinate)
Exon (#Exon id, *Gene id, start coordinate, stop coordinate)
Isoform (#Isoform id, isoform name, *Gene id)

3.

    i.  Entries; Gene

   ii.



**Gene**
#Gene symbol
Offical name
Synonyms
References
Chromosome name
Chromosome length
Start coordinate
Stop coordinate
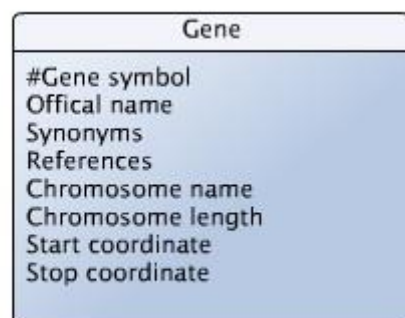
iii. Genes (#Gene symbol, Official name, #Synonym, Chromosome name, Chromosome length, Start coordinate, End coordinate, #Reference id, Reference author, Reference title, Reference Year published )

iv. Gene(#Gene symbol, Official name, Chromosome name, Chromosome length, Start coordinate, End coordinate)

Synonym(#Synonym name, *Gen symbol)

References(*Reference id, title, journal, Year published)

Author (#Author id, Name)

AutRef(*Author, *Reference, #Id)

4.
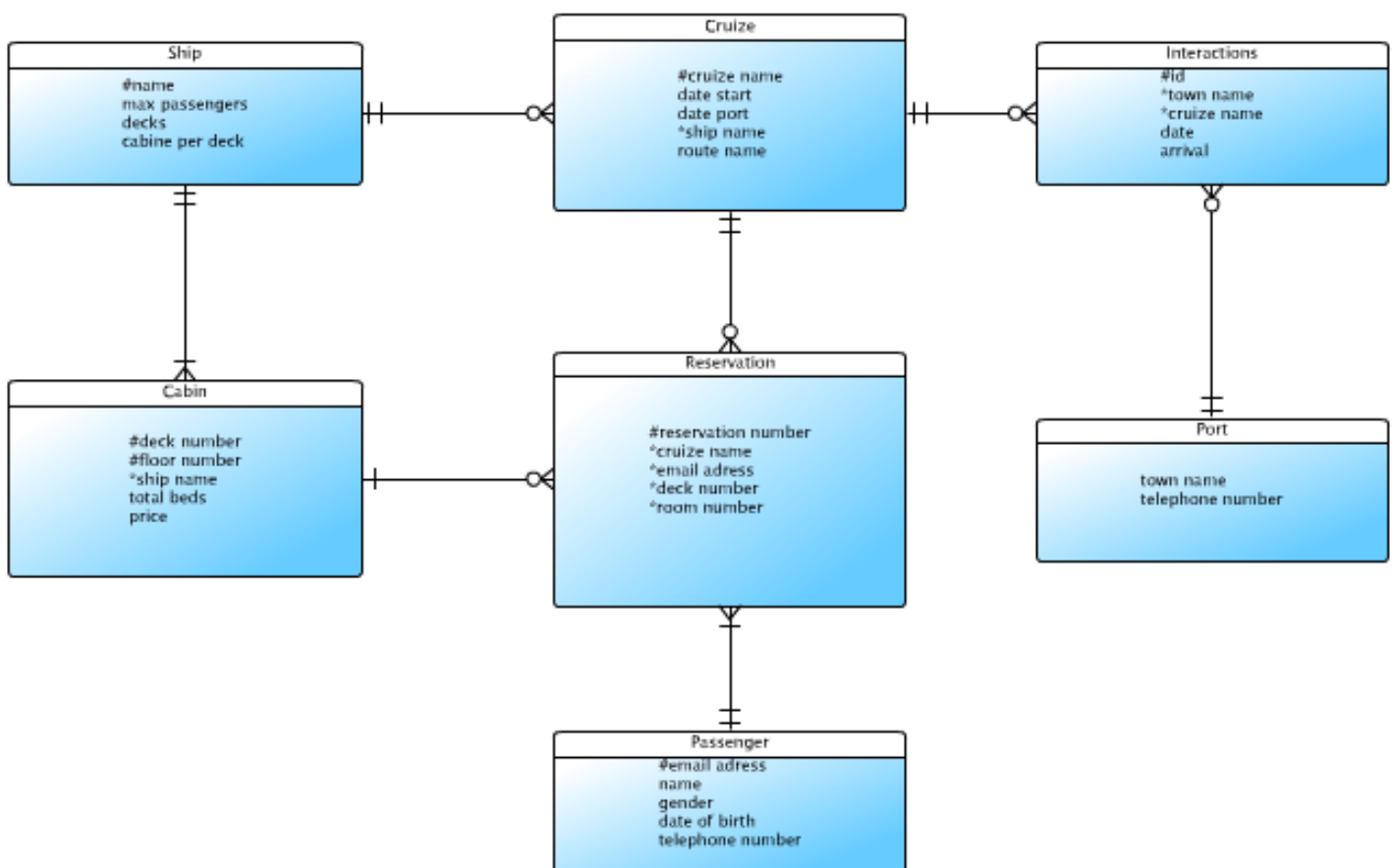
5.

   i. When the truck has done its first assignment – its no longer useable. Therefore the truck has to be reregistered or changed so it can be given a new assignment. The truck has no primary key, which makes it not possible to get a log of the trucks different assignments. Also by this, we will get much duplicated information. Because we don't have a list of assignments attached to each truck.

  ii. "Registration year" is functionally dependent on "Model", "Maximum weight" in functionally dependent "Model". One can't give the maximum weight when you don't know the "Model". The same is held for "Registration year", you can't get the "Registration year" without knowing the "Model".

 iii. {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 Assignments (#Truck assignment, *Assignment number, *Registration number)

     Truck (#Registration number, Registration year, *Model id)

     Model (#Mode id, Maximum weight)