



Middle East Technical University  
Department of Computer Engineering

**Ceng 302**  
**Introduction to Database Management Systems**  
**Fall 2014-2015-Homework 1**

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Assume you are given the following requirements for a simple database regarding a health center patient management system:

- A health center has a name which is unique and contact details which include phone number(s),address.
- Each employee that works in a health center should have at least employee ID,name,sex,birthday, contact details (phone number(s),address(es)).
- There are two types of employees that works in a health center:Doctors and nurses.
- Each doctor has a specialty(e.g. cardiologist,dermatologist etc.).
- Each nurse has a specialty(e.g. emergency nurse,cardiac nurse etc.).
- A doctor may look after one or more patients and a patient might be looked after by one or more doctors.
- Each patient should have at least patient ID,name,sex,birthday,contact details(phone number(s),address(es)) and type(inpatient or outpatient).
- Each patient has one or more medical records. Each medical record includes the record number,date and type(e.g. prescriptions,test results etc.).
- Each inpatient may have 0 or more visitors.The visitor of a patient has a name,birthday and relationship with the inpatient.

Given the above requirements, draw an E-R diagram using the notation given in the lecture slides.You can either draw E-R diagram by hand or can use Dia,which is an open source diagram tool, that can be downloaded from <http://dia-installer.de/download/index.html>. If you draw by

hand,you should scan your work and submit that soft copy.In case, you use Dia or any other software to draw the diagram, please convert it into an image file(like jpeg,png. etc.) and submit that image file.For Dia,you can use File-Export to convert your work to an image file.Also,an important point is your submissions should be readable; so please check before submitting.

**Note:** Some of the entity fields are not given in the definition above. Therefore, you have to insert necessary fields expressed by the relation requirements for a correct solution.

## **Regulations for HW1**

- The homework must be completed individually; copying from others is strictly forbidden.
- You have to submit your homework as soft copy through odtuclass.
- The deadline for the homework is 24.10.2014 23:55.
- Late homeworks will not be evaluated.

## **Appendix**

### **A.Glossary of Terms with Turkish Equivalences**

**Specialty:** Uzmanlık,uzmanlık alanı

**Inpatient:** Yatılı hasta

**Outpatient:** Yatılı olmayan hasta

**Medical Record:** Hastanın sağlık kaydı