

Outline

- 1. Essential to a good database design**
- 2. Some of the considerations**
- 3. Design Process**
- 4. Example**
- 5. Assignment3**

1. What is essential to a good database design?

1.1 Reduces redundancy

1.2 Provides access with information a user needs to join tables together

1.3 Ensures data accuracy and integrity

1.4 Accommodates your data processing and reporting needs

2. Some of the considerations

2.1 Design a schema logically based on business requirements.

2.2 Define the physical layout of the database.

2.3 Define the security for the schema.

2.4 Define and use the appropriate naming conventions.

3. Design Process

3.1 Define the purpose of the database

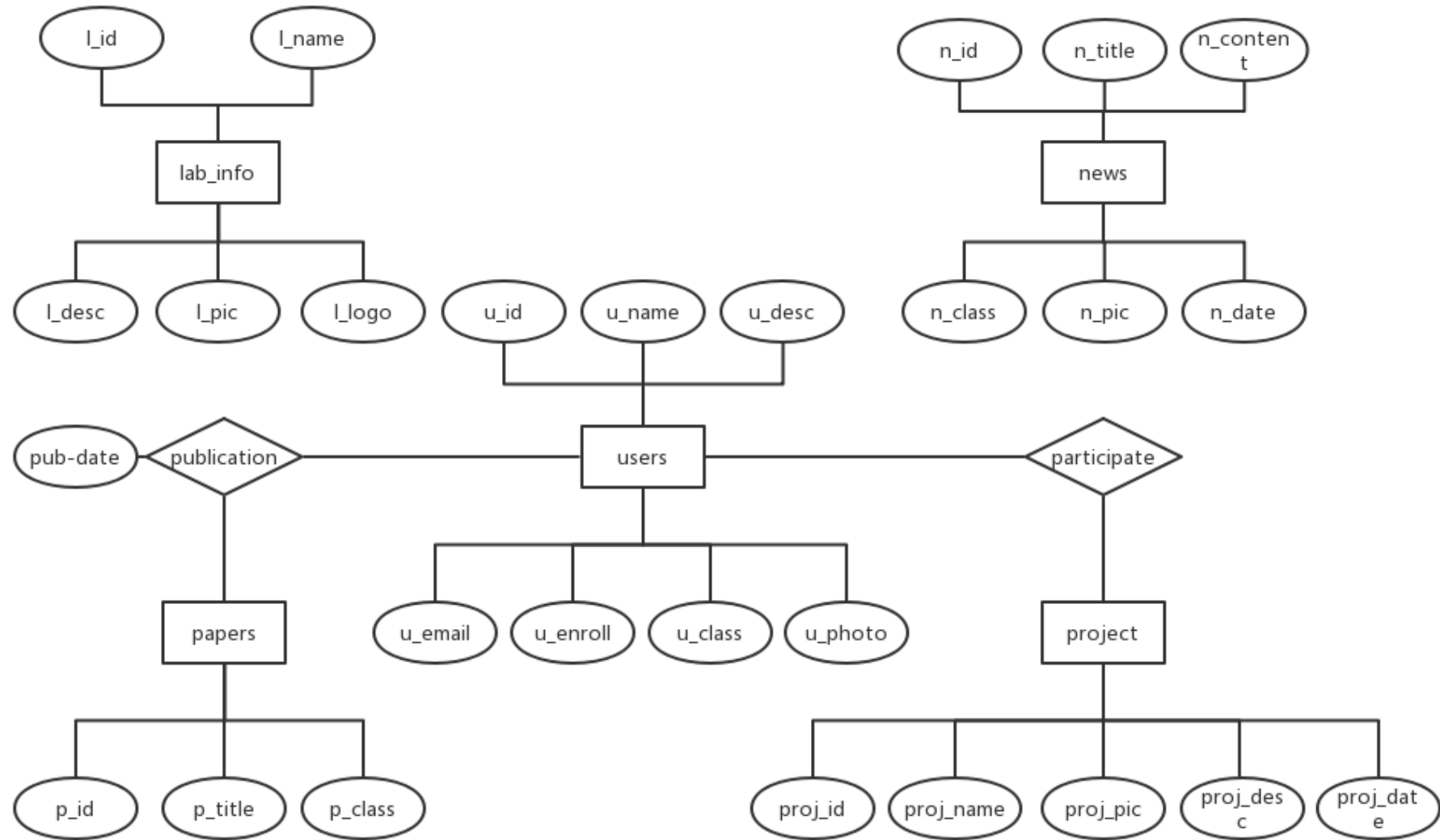
3.2 Gather Data, Organize in tables and Specify the Primary Keys

3.3 Create Relationships among Tables

3.4 Refine & Normalize the Design

Example

<http://47.107.131.96/>



Assignment3

Content

- ❑ For example, very simple application based on university database (without programming)
 - A student grade management
 - Involving at least 3~4 tables in university database
 - Can design an application background by yourselves.
- ❑ Use the tools offered by Access directly to implement the interface, queries, report, etc.

Demands

- ❑ Show your completed application to supervisor
- ❑ Hand in a report about the assignment
 - Main contents
 - Database design(including E-R diagram)
 - Function design(describe what function you want to design)
 - Database query(not too simple)
- ❑ Hand in your .mdb database with the application

Submission

❑ File name format:

Sno_A3.zip

including:

report_A3.doc

university_A3.mdb

Deadline: Beijing time, November 12th, 23:59:00