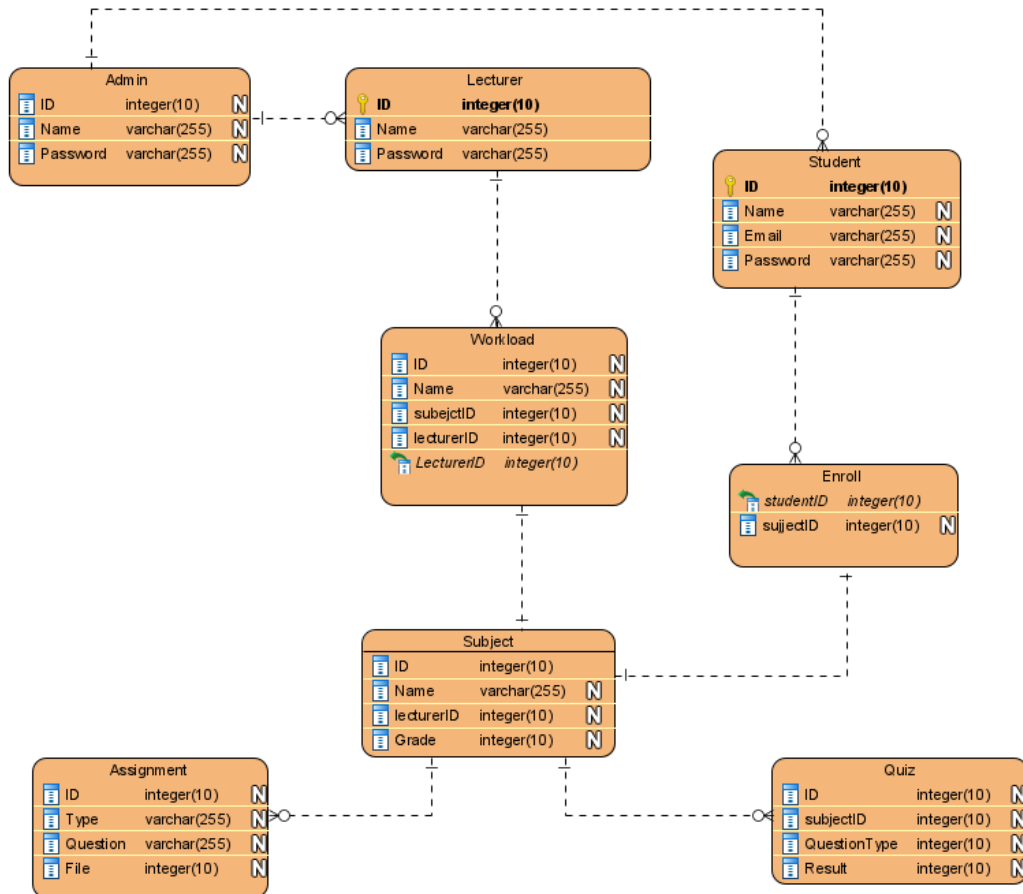


# Database Normalization

## ERD(first draft)

[Grab your reader's attention with a great quote from the document or use this space to emphasize a key point. To place this text box anywhere on the page, just drag it.]



Admin Entity – 3NF

Lecturer Entity – 3NF

Student Entity – 3NF

Workload Entity – 2NF

Enroll Entity – 2NF

Subject Entity – 2NF

Assignment Entity – 3NF

Quiz Entity – 1NF

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Hence in this case we will be normalizing:- Workload, Subject, Enroll, Quiz.

**3NF**

WORKLOAD	
subject_id	lecturer_id

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**3NF**

SUBJECT	
subject_id	subject_name

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**3NF**

ENROLL		
student_id	subject_id	lecturer_id

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2NF

QUIZ								
subject_id	subject_name	student_id	lecturer_id	quiz	quiz_answer	assignment	assignment_answer	quiz_marks

3NF

QUIZ		
quiz_id	subject_id	quiz_type

MULTIPLE QUIZ					
quiz_id	question_form	answer_a	answer_b	answer_c	answer_d

TF QUIZ		
quiz_id	question_form	answer

QUIZ MARKS	
quiz_id	marks

ASSIGNMENT		
assignment_id	assignment_desc	assignment_answer

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### **Summary UNF-3NF**

#### UNF

- QUIZ (admin\_name, admin\_password, lecturer\_name, lecturer\_password, student\_name, student\_email, student\_password, subject\_name, tasks, marks)

#### 1NF

- QUIZ (admin\_id, admin\_name, admin\_password, lecturer\_id, lecturer\_name, lecturer\_password, student\_id, student\_name, student\_email, student\_password, subject\_id, subject\_name, quiz, quiz\_answer, assignment, assignment\_answer, quiz\_marks, assignment\_marks)

#### 2NF

- ADMIN (admin\_id, admin\_name, admin\_password)
- LECTURER (lecturer\_id, lecturer\_name, lecturer\_password)
- STUDENT (student\_id, student\_name, student\_email, student\_password)
- QUIZ (subject\_id, subject\_name, student\_id, lecturer\_id, quiz, quiz\_answer, assignment, assignment\_answer, quiz\_marks)

#### 3NF

- ADMIN (admin\_id, admin\_name, admin\_password)
- LECTURER (lecturer\_id, lecturer\_name, lecturer\_password)
- STUDENT (student\_id, student\_name, student\_email, student\_password)
- SUBJECT (subject\_id, subject\_name)
- WORKLOAD (subject\_id, lecturer\_id)
- ENROLL (student\_id, subject\_id)
- QUIZ (quiz\_id, subject\_id, quiz\_type)
- MULTIPLE\_QUIZ (quiz\_id, question\_form, answer)
- TF\_QUIZ (quiz\_id, question\_form, answer\_a, answer\_b, answer\_c, answer\_d)
- QUIZ\_MARKS (quiz\_id, marks)
- ASSIGNMENT (assignment\_id, assignment\_desc, assignment\_answer)

## Group 17

### ERD 2<sup>nd</sup> DRAFT

