

```

classDiagram
    class user {
        +user_id {pk}
        +username
        +email
        +password
        +refresh_token_id
        +tag_id
    }
    class role {
        +role_id {pk}
        +type
    }
    class collaborator {
        +collaborator_type
        +type_id {pk}
        +name
    }
    class comment {
        +text
        +created_at
    }
    class quiz {
        +quiz_id {pk}
        +title
        +description
        +is_public
        +created_at
    }
    class history {
        +history_id {pk}
        +completed_at
        +score
        +rating
        +feedback_text
    }
    class feedback {
        +feedback_id {pk}
        +title
        +content
        +created_at
    }
    class refresh_token {
        +refresh_token
        +revoked
    }
    class tag {
        +tag
    }
    class question_tag {
    }
    class question {
        +question_id {pk}
        +question_name
        +question_text
        +explanations
        +is_public
        +question_duration
    }
    class question_type {
        +type_id {pk}
        +type
    }
    class difficulty_level {
        -difficulty_id {pk}
        -difficulty
    }
    class multi_media {
        +media_id {pk}
        +file_path
        +description
        +created_at
    }
    class media_type {
        +type_id {pk}
        +description
    }
    class category {
        +category_id {pk}
        +name
        +description
    }
    class completion_feedback {
        +feedback_id {pk}
        +text
    }
    class quiz_completion_feedback {
        +score_lower_bound
        +score_upper_bound
    }
    class answer {
        +answer_id {pk}
        +text
    }
    class answer_question {
        +is_correct
    }

    user "1..1" -- "0..*" role : +have a <
    user "1..1" -- "0..*" collaborator : +collaborators
    user "1..1" -- "0..*" comment : +can write <
    user "1..1" -- "0..*" quiz : +can work on >
    user "1..1" -- "0..*" history : +can view history on >
    user "1..1" -- "0..*" feedback : +can give <
    user "1..1" -- "0..*" refresh_token : +uses >
    user "1..1" -- "0..*" tag : +can make >
    user "1..1" -- "0..*" question : +can be added to >
    collaborator "1..1" -- "0..*" quiz : +can create >
    comment "0..*" -- "1..1" user : +can write <
    quiz "1..1" -- "0..*" history : +history
    quiz "1..1" -- "0..*" feedback : +gives feedback after finishing >
    quiz "1..1" -- "0..*" category : +is divided into >
    quiz "1..1" -- "0..*" multi_media : +has thumbnail >
    quiz "1..1" -- "0..*" question : +contains >
    quiz "1..1" -- "0..*" answer : +contains >
    history "0..*" -- "0..*" feedback : +feedback
    refresh_token "0..*" -- "0..*" user : +uses >
    tag "0..*" -- "0..*" user : +can make >
    question_tag "0..*" -- "0..*" question : +question_tags
    question "1..1" -- "0..*" question_type : +has a >
    question "1..1" -- "0..*" difficulty_level : +has a >
    multi_media "0..1" -- "0..1" question : +can contain a >
    multi_media "0..1" -- "0..1" question : +contains >
    category "1..1" -- "0..*" quiz : +is divided into >
    completion_feedback "1..1" -- "0..*" quiz : +can use >
    quiz_completion_feedback "1..*" -- "0..*" completion_feedback : +quiz_Completion_Feedbacks
    answer "1..1" -- "0..*" question : +contains >
    answer_question "1..1" -- "0..*" answer : +answer_Questions
  
```

quiz\_completion\_feedback (quiz\_id\*, feedback\_id\*, score\_lower\_bound,  
score\_upper\_bound)

category (category\_id, name, description)

difficulty\_level (difficulty\_id, difficulty)

question (question\_id, question\_name, question\_text, explanations, question\_duration,  
is\_public, type\_id\*, difficulty\_id\*, media\_id\*)

question\_type (type\_id, type)

answer (answer\_id, answer\_text)

answer\_question (question\_id\*, answer\_id\*, is\_correct)

multi\_media (media\_id, file\_path, description, created\_at, type\_id\*)

media\_type (type\_id, description)

tag (tag\_id, tag, user\_id\*)

question\_tag (tag\_id\*, question\_id\*)

refresh\_token (refresh\_token\_id, refreshtoken, revoked, user\_id\*)