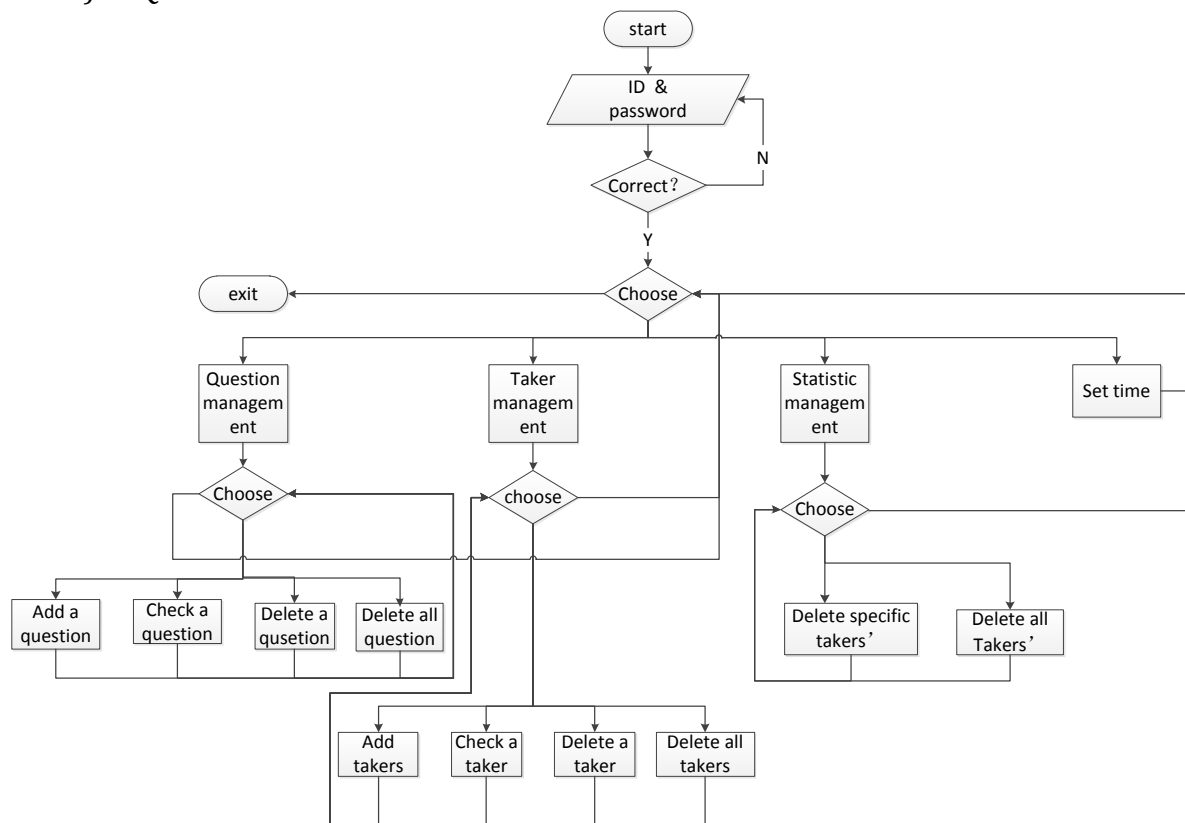
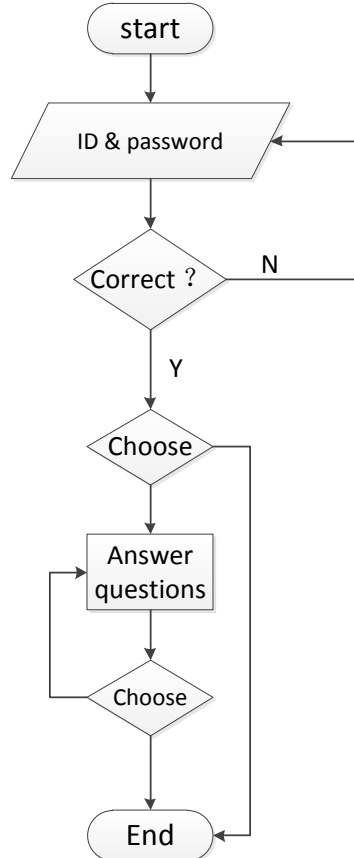


1, Control Flow

1) QM



2) QT



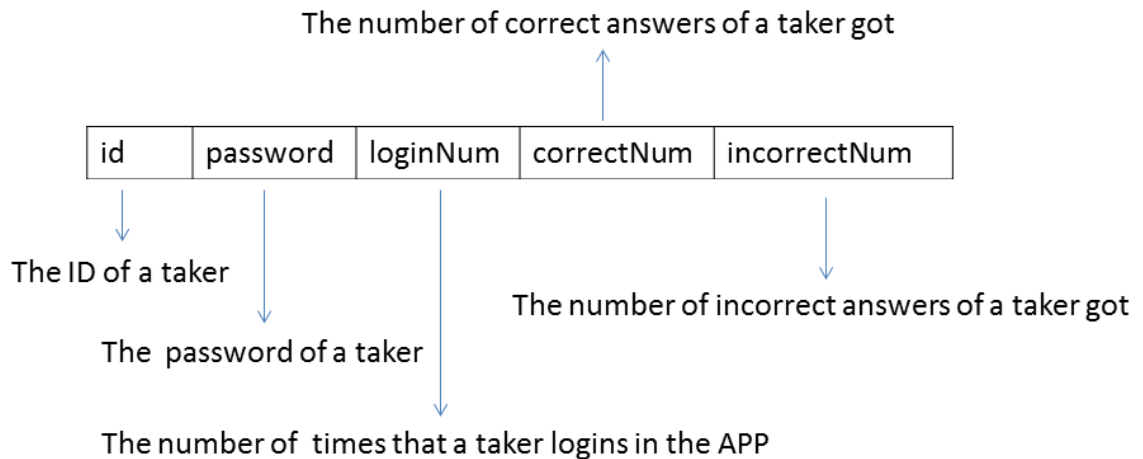
2, Database

Use SQLite database inside of android. There are four tables in the database.

1) Takers

This table is used to store the information of all the takers.

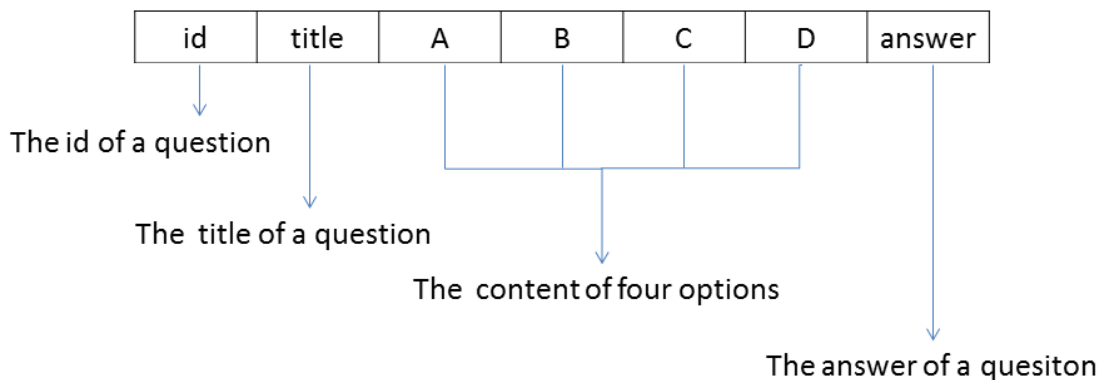
SQL: **create table takers (id text primary key , password text, loginNum integer, correctNum integer, incorrectNum integer)**



2) Questions

This table is used to store all the questions.

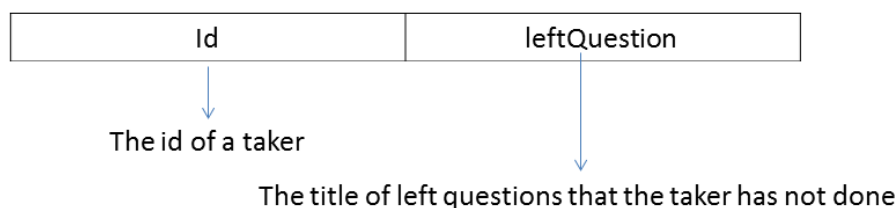
SQL: **create table questions (id integer primary key autoincrement, title text unique, A text, B text, C text, D text, answer char(1))**



3) Completion

The table is used to store the left questions which every taker does not finish.

SQL: **create table completion (id integer, leftQuestion text)**



At beginning, this table stores all the takers and all the questions. For example, a taker id is 1, there are only two questions: t1, t2.

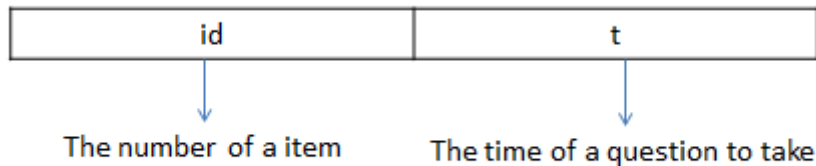
id	title
1	t1
1	t2

When a taker finished a question, this row of the question will be deleted from the table. When a taker is added to the table takers, or a new question is added to table questions; the table completion will be updated. This can choose questions from the table, the questions will not be repeated.

4) Time

This table is used to store the time that the QM sets for a question to take.

SQL: **create table time(id integer primary key, t integer)**



The default time is 10s which is stored in the table at first. QM can change the time.

3, Functions

The quiz has implemented all functions. The following is the details.

- 1, two users: quiz master (QM) , quiz taker(QT).
- 2, QM can build a quiz database with no limitation on the number of questions. If there is no disk space to store more entries on the quiz database, the app flags an error message.
- 3,QM can build a QT database with a pair of ID and password.
- 4, QM can set the time which the QT uses to answer each question. The minimum time is 10s and the maximum time is 30 seconds.
- 5, the app give 5 questions in each round of user login, have a option to continue another round , and another round and so on.
- 6, For each question, incorrectly answered or not answered within the given time, using red to indicate the right answer.
- 7, Remaining time is displayed in seconds.
- 8, If a question is correctly answered, the app takes the user to the next question.
- 9, On every question screen, the app tells the user how many questions have been attempted and how many questions have been correctly answered.
- 10, Before the app is closed, it saved the performance of the QT for further processing and display, such as how many times the QT took quizzes, and her performance in each round.
- 11, The app randomly selects questions and no questions is repeated.
- 12, QM can delete the statistics saved for individual QTs.