

Relational Model

- Users (user_id, username, name, email, encrypted_password, dateOfBirth, country, aboutMe, ranking, institution, admin, occupation)

Candidate Keys: user_id, username, email

- Problems(problem_id, title, timeLimit, sourceLimit, dateAdded, problem_statement, user_id, solution_file, test_file)

Candidate Keys: problem_id, title

- Contests(contest_id, contestName, startDateTime, endDateTime, user_id)

Candidate Keys: contest_id, (contestName, startDateTime)

- Participants(user_id, contest_id)

Candidate Keys: (user_id, contest_id)

- Problem_in_contests(problem_id, contest_id)

Candidate Keys: (problem_id, contest_id)

- Submissions(submission_id, languageUsed, dateTimeOfSubmission, timeTaken, memoryUsed, submissionFile, status, user_id, problem_id, contest_id)

Candidate Keys: submission_id, (user_id, dateTimeOfSubmission)