

CassandraDB Schema Description

This section describes the schema designed for implementing MyInstagram CassandraDB. However, this schema might differ from the entity-attributes listed in the “Entities and their Attributes” section since that is a conceptual schema and the schema described here is implementation-oriented schema.

UUID: UUID stands for **Universally Unique Identifier**. UUID is a universally unique identifier that is generated using a timestamp and the MAC address of the computer on which it was generated.

For more information about CassandraDB visit: <https://cassandra.apache.org/doc/latest/cql/types.html>

- User
 - createdAt:
Stores “timestamp” datatype. Is stored for keeping track of when the user registered on the platform.
 - tokenVersion:
Stores “boolean” datatype. Is stored to maintain and manage logins and logouts of an account.
 - fullname:
Stores “text” datatype. Is stored to show the user’s name on his/her profile.
 - username:
Stores “text” datatype. Is stored to maintain the user’s username on the platform.
 - email:
Stores “text” datatype. Is stored to maintain the user’s email. This is also the primary key for the table.
 - phoneNo:
Stores “text” datatype. Is stored to maintain the user’s phoneNo. Also helps in not allowing other users to use the same phoneNo again.
 - language:
Stores “text” datatype. Is stored to always render things in that language for the user. By default it will be en-us

- password:
Stores "text" datatype. Is stored to keep track of the user's password.
- DOB:
Stores "text" datatype. Is stored for keeping track of the user's birthdate.
- gender:
Stores "text" datatype. Is stored for keeping track of the user's gender.
- blockedUser:
It is an array. Array stores email's. This attribute maintains a record of the profiles the user has blocked at present.
- savedPosts:
It is an array. Array stores "uuid"s. This attribute maintains a record of the posts the user has saved.
- followers:
It is an array. Array stores email's. This attribute maintains a record of the profiles following the user at present.
- following:
It is an array. Array stores email's. This attribute maintains a record of the profiles the user is following at present.
- hashtags:
It is an array. Array stores hashtag's. This attribute maintains a record of the hashtags the user is following at present.
- accountType:
Stores "boolean" datatype. Is stored to keep a track of whether the user's account is public/private. By default it will be true

true ⇒ public
false ⇒ private
- accountType2:
It is a map. It stores the mapping of account type and a boolean. Is stored to keep a track of whether the user's account is a normal/professional/business account. Boolean for current account type of user will be true. Default settings will be public: true and rest false.
- requests:
It is an array. Array stores email's. This attribute maintains a record of the profiles that have requested to follow the user at present.
- taggedIn:
It is an array. Array stores "uuid"s. This attribute maintains a record of the posts in which the user is tagged at present.

→ liked:

It is an array. Array stores "uuid"s. This attribute maintains a record of the posts that the user has liked at present.

→ account:

Stores "boolean" datatype. Is stored to keep a track of whether the user's account is currently enabled/disabled. By default it will be true.

true ⇒ enabled

false ⇒ disabled

→ verified:

Stores "boolean" datatype. Is stored to keep a track of whether the user's account is verified or not. By default it will be false.

true ⇒ verified

false ⇒ not verified

→ blockUserFromComment:

It is an array. Array stores email's. This attribute maintains a record of the profiles that the user has blocked from commenting on his/her posts at present.

→ manuallyApproveTags:

Stores "boolean" datatype. Is stored to keep a track of whether the user wants to approve tags manually or not. By default it will be false.

true ⇒ user will himself/herself approve the tags

false ⇒ user can be tagged by anyone abiding the "allowTagsFrom" value

→ toConfirmTag:

It is an array. Array stores "uuid"s. This attribute maintains a record of the posts in which the user is tagged and hasn't yet taken any action on. An "uuid" is stored in this only when "manuallyApproveTags" is set to true.

→ allowTagsFrom:

It is a map. It stores the mapping of available options and boolean value. Is stored to keep a track of who can tag the user in their posts. At a time only one value should be true and rest false. By default everyone will be set to true.

→ likeViewCount:

Stores "boolean" datatype. Is stored to keep a track of whether the user should be shown the number of likes and views on a post he/she visits (apart from the ones the user has himself/herself posted) or not. By default it will be true

true ⇒ likes and views count should be shown

false ⇒ likes and views count should not be shown

→ allowCommentFrom:

It is a map. It stores the mapping of available options and boolean values. Is stored to keep a track of who can comment on the user's posts. At a time only one value should be true and rest false. By default everyone will be set to true.

→ checkComment:

Stores "boolean" datatype. Is stored to keep a track of whether a comment should be checked before getting posted on the user's post or not. By default it will be set to false.

true ⇒ comment must be checked

false ⇒ comment should not be checked

→ offensiveWords:

It is an array. Array stores "text" datatype. This attribute helps in performing a check on a comment before it is posted for all the words the user has marked as offensive. This will be performed only when "checkComment" is set to true.

→ hideStory:

It is an array. Array stores email's. This attribute maintains a record of the profiles that the user has hid his/her stories from.

→ allowAtMention:

It is a map. It stores the mapping of available options and boolean values. Is stored to keep a track of who can mention the user in their story. At a time only one value should be true and rest false. By default all will be set to true.

→ closeFriends:

It is an array. Array stores email's. This attribute maintains a record of the profiles that the user has marked as his/her close friends and can see his/her stories whose type is "closeFriends".

→ allowToShareOnStory:

Stores "boolean" datatype. Is stored to keep a track of whether other users can share the user's post on their stories or not. By default it will be true.

true ⇒ user's posts can be shared on story

false ⇒ user's posts cannot be shared on story

→ muteStories:

It is an array. Array stores email's. This attribute maintains a record of the profiles that the user doesn't want to see the stories of.

→ mutePosts:

It is an array. Array stores email's. This attribute maintains a record of the profiles that the user doesn't want to see the posts of.

→ isMentionedIn:

It is an array. Array stores "uuid"s. This attribute maintains a record of the stories the user is mentioned in.

→ storyArchive:

Stores "boolean" datatype. Is stored to keep a track of whether the user's stories should be archived or deleted permanently after 24hours. By default it is true.

true ⇒ user's stories should be archived

false ⇒ user's stories shouldn't be archived and should be deleted permanently

→ liveArchive:

Stores "boolean" datatype. Is stored to keep a track of whether the user's live sessions should be archived or deleted permanently after ending the session. By default it is true.

true ⇒ user's live sessions should be archived

false ⇒ user's live sessions shouldn't be archived and should be deleted permanently

→ restrictAccounts:

It is an array. Array stores email's. This attribute maintains a record of the profiles the user has restricted.

→ countdown:

It is an array. Array stores "timeuuid" datatype. This attribute maintains a record of the unexpired countdowns set by the user.

→ profilePicture:

Stores "text" datatype. It stores the link of the image that is set as the user's profile picture.

→ bio:

Stores "text" datatype. It stores the bio set by the user.

→ website:

Stores "text" datatype. It stores the website set by the user.

→ blockedFrom:

It is an array. Array stores email's. This attribute maintains a record of the profiles the user is blocked by.

→ hideFromProfileGrid:

It is an array. Array stores "uuid"s. This attribute maintains a record of the posts that are not to be shown on the user's MyProfile page.

→ posts:

It is an array. Array stores "uuid"s. This attribute maintains a record of the posts of the user.

→ stories:

It is an array. Array stores "uuid"s. This attribute maintains a record of the stories of the user.

→ recentStory:

It is an array. Array stores "uuid"s. This attribute maintains a record of the stories which are not yet expired, .i.e, aren't yet 24hr old.

→ searchHistory:

It is an array. Array stores "text" datatype. This attribute maintains a record of the profiles/hashtags/locations the user has recently searched for.

- Post

→ u_id:

Stores email id's in "text" datatype. Stores email of the owner of this post, i.e., the user who made this post.

→ createdAt:

Stores "timestamp" datatype. Is stored for keeping track of when the post was made.

→ modifiedAt:

Stores "timestamp" datatype. Is stored for keeping track of when the post was last edited.

→ caption:

Stores "text" datatype. It stores the caption of the post.

→ location:

Stores "text" datatype. It stores the location added to the post.

→ tagged:

It is a map. It stores the mapping of an email id of the user and a boolean value. Here the boolean value indicates either the tagged user's account is enabled or not.

→ type:

Stores "text" datatype. Stores type of the post.

Values possible ⇒ reel/post/igtv

→ likedBy:

It is an array. Array stores email's of the user. This attribute maintains a record of the users who liked the post.

→ hashTags:

It is an array. Array stores "text" datatype. This attribute maintains a record of the hashtags used in the post.

→ deleted:

Stores "boolean" datatype. Is stored to keep a track of whether the post has been deleted or not. By default it is false

true ⇒ post has been deleted

false ⇒ post is not deleted

→ commenting:

Stores "boolean" datatype. Is stored to keep a track of whether the user has allowed commenting on this post or not. By default it will be true.

true ⇒ commenting on this post is allowed

false ⇒ commenting on this post is not allowed

→ archived:

Stores "boolean" datatype. Is stored to keep a track of whether the post has been archived or not. By default it will be false.

true ⇒ post has been archived

false ⇒ post is not archived

→ count:

Stores "bool" datatype. Is stored to keep a track of whether the post's likes and view count is to be shown or not. By default it will be true.

true ⇒ show likes and views count of the post

false ⇒ don't show likes and views count of the post

→ title:

Stores "text" datatype. Stores the title of the post.

→ content:

It is an array. Array stores "text" datatype. This attribute stores links of the images/videos posted.

→ music:

Stores "text" datatype. Stores the name of the music.

→ disabled:

Stores "boolean" datatype. Is stored to keep a track of whether the owner of the post has disabled his/her account or not. By default it will be false.

true ⇒ owner's account is disabled

false ⇒ owner's account is enabled

- Story

- viewedBy:

- It is an array. Array stores email's of the users who've seen the story.

- createdAt:

- Stores "timestamp" datatype. Is stored for keeping track of when the story was posted.

- viewType:

- Stores "text" datatype. Indicates who can see the story.

- Values possible ⇒ all, followers, closeFriends

- u_id:

- Stores email id of the user who posted the story.

- mention:

- It is an array. Array stores email's of the users mentioned in the story.

- location:

- Stores "text" datatype. Stores the location added by the user in the story.

- archived:

- Stores "boolean" datatype. It indicates whether the story is archived or not.

- true ⇒ Story is archived

- false ⇒ Story is not archived

- music:

- Stores "text" datatype. Stores the title of the song added to the story.

- link:

- Stores "text" datatype. Stores the link added by the user to the story.

- deleted:

- Stores "boolean" datatype. It indicates whether the story is deleted or not. By default it is false.

- true ⇒ Story is deleted

- false ⇒ Story is not deleted

- disabled:

- Stores "boolean" datatype. It indicates whether the owner of the story has disabled his/her account or not. By default it is false.

- true ⇒ Owner's account is disabled.

false ⇒ Owner's account is enabled.

- poll:
It is an array. Array stores the list of questions followed by the first and second option.
- question:
Stores "text" data type and question for the users.
- eslider:
Stores "text" data type. It contains the text content above the emoji slider.
- quizContent:
It is an array. Array stores questions of the quiz followed by all the options of quiz.
- PollsResponses:
It is a map. It stores the mapping of the user's email address and response on the poll.
- QuestionsResponses:
It is a map. It stores the mapping of the user's email address and response on the question.
- EmojiSliderResponses:
It is a map. It stores the mapping of the user's email address and int value based on the slider.
- QuizResponses:
It is a map. It stores the mapping of the user's email address and answer that user has responded to the quiz.
- content:
Stores "text" data type. This attribute stores the link of the image/video posted.

- Comment

- p_id:
Stores "uuid" of the post on which the comment is being posted.
- u_id:
Stores email id of the user who has posted the comment.
- likedBy:
It is an array. Array stores email's of the users who've liked the post.
- createdAt:

Stores "timestamp" datatype. Is stored for keeping track of when the comment was made.

→ rComment:

Stored "boolean" datatype. Is stored for knowing whether the comment made is by a restricted user or not. By default it is false.

true ⇒ User is restricted by the owner of the post.

false ⇒ User is not restricted by the owner of the post.

→ commentText:

Stores "text" datatype. Stores the content of the comment, i.e., the comment itself.

→ owner_id:

Stores email id of the user who has made the post.

→ disabled:

Stored "boolean" datatype. Is stored for keeping track of whether the account of the owner of the post is currently disabled or not. By default it is false.

true ⇒ Owner's account is disabled.

false ⇒ Owner's account is enabled.

→ bComment:

Stored "boolean" datatype. Is stored for knowing whether the comment made is by a user who is blocked by the owner of the post from commenting or not. By default it is false.

true ⇒ User is blocked from commenting by the owner.

false ⇒ User is not blocked from commenting by the owner.

- Logs

→ u_id:

Stores email id of the user whose activity is being logged.

→ createdAt:

Stores "timestamp" datatype. Is stored to keep track of when the activity took place.

→ type:

Stores "text" datatype. Stores the attribute name which was updated or the action performed.

Example: Login, tagged, update username etc

→ activityRelated:

Stores "boolean" datatype. Is stored to keep track of whether the activity being logged has is related to the "Activity Related to My Account" functionality of the platform or not.

true ⇒ It is activity related.

false ⇒ It is not activity related.

→ value: (Not used everytime.)

Stores "text" datatype. This is for logging the value the user changed fields to, such as, new username, user answering a poll or a quiz etc.

- Report Log

→ object_id:

Stores uuid/email as "text" of the entity reported.

→ category:

Stores "text" datatype. Is stored to keep track of the reason why the entity was reported.

Example: Spam, Harassment, Inappropriate etc.

→ type:

Stores "text" datatype. Is stored to keep track of which entity has been reported.

Values possible ⇒ post, comment, story, profile

- HashTag

→ hashtag:

Stores "text" datatype. It stores the hashtag itself.

→ posts:

It is an array. Array stores "uuid"s. It maintains a record of the posts which have used the corresponding hashtag.

- Request For Verification

→ u_id:

It stores the email id of the user who made the request for verification.

→ fullname:

Stores "text" datatype. It stores the name of the user.

→ knownAs:

Stores "text" datatype. It stores the title the user is known by publicly.

- category:
Stores "text" datatype. It stores the category the user works in. Example: musician, actor etc.
- image:
Stores "text" datatype. It stores a link of the image of the legal proof given by the user.
- status:
Stores "text" datatype. It indicates the status of the request the user has made.

Values possible ⇒ posted, viewed, underVerification, approved, declined

- LiveVideos

- video:
Stores "text" datatype. It stores a link of the video of the live session.
- createdAt:
Stores "timestamp" datatype. Is stored for keeping track of when the live session was.
- u_id:
It stores the email id of the user whose live session's video is being saved.

- Delete Account

- u_id:
It stores the email id of the user who made a delete account request.

- manageNotification:

- email:
It stores the email id of the user for whose account some has turned on notifications for post/story/reels/igtv.
- Posts:
It is an array. Array stores email id. This attribute maintains a record of the profiles that want to receive a notification whenever the user posts an image/video on feed.
- stories:
It is an array. Array stores email id. This attribute maintains a record of the profiles that want to receive a notification whenever the user posts a story.
- igtv:

It is an array. Array stores email id. This attribute maintains a record of the profiles that want to receive a notification whenever the user posts an IGTV video.

→ reels:

It is an array. Array stores email id. This attribute maintains a record of the profiles that want to receive a notification whenever the user posts a reel.

→ livevideos:

It is an array. Array stores email id. This attribute maintains a record of the profiles that want to receive a notification whenever the user starts a live video session.

- Collection:

→ email:

Stores "text" datatype. It stores the email id for account which adds either highlight or guides to their profile

→ collectionName:

Stores "text" datatype. It stores the title of the collection.

→ p_id:

It is an array. Array stores "uuid"s. It maintains a record of the posts which have been added to a specific collection.

→ type:

Stores "text" datatype. It stores the type of collection whether it is collection for highlights or for guides

- PostStats:

→ p_id:

Stores "uuid" of the post for which the stats are being recorded.

→ likes:

Stores "counter" data type. Used to keep count of the likes of a post.

→ savedCount:

Stores "counter" data type. Used to keep count of the number of times the post is saved.

→ sharedCount:

Stores "counter" data type. Used to keep count of the number of times the post is shared.

→ profilevisits:

Stores "counter" data type. Used to keep count of the number of times any user has visited the profile of the owner of the post through post.

→ follows:

Stores “counter” data type. Used to keep count of the number of time any user started following owners’ profile after visiting it through post.

→ impressions:

Stores “counter” data type. Indicates the total number of times the user’s post was on other users’ screen.

- StoryStats:

→ s_id:

Stores “uuid” of the story for which the stats are being recorded.

→ sharedCount:

Stores “counter” data type. Used to keep count of the number of times the post is saved.

→ profilevisits:

Stores “counter” data type. Used to keep count of the number of times any user has visited the profile of the owner of the story through story.

→ impressions:

Stores “counter” data type. Indicates the total number of times the user’s post was on other users’ screen.

→ follows:

Stores “counter” data type. Indicates the number of users who followed the owner of the story through the story.

→ forward:

Stores “counter” data type. Indicates the number of times the users who saw the story skipped other stories of the owner of that story, i.e., moved on to some other user’s stories.

→ exited:

Stores “counter” data type. Indicates the number of times the users who visited the story exited the story panel from there on.

→ next:

Stores “counter” data type. Indicates the number of times the users who visited the story went on ahead to view the next story of the user.

- commentStats:

→ comment_id:

Stores “uuid” of the comment for which the stats are being recorded.

→ likes:

Stores “counter” data type. Used to keep count of the likes of a comment.

- userCount:
 - email:
Stores email id of the user for which the stats are being recorded.
 - postCount:
Stores “counter” data type. Used to keep count of the total number of posts uploaded by a user.
 - storyCount:
Stores “counter” data type. Used to keep count of the total number of stories uploaded by a user.
 - commentCount:
Stores “counter” data type. Used to keep count of the total number of comments uploaded by a user.