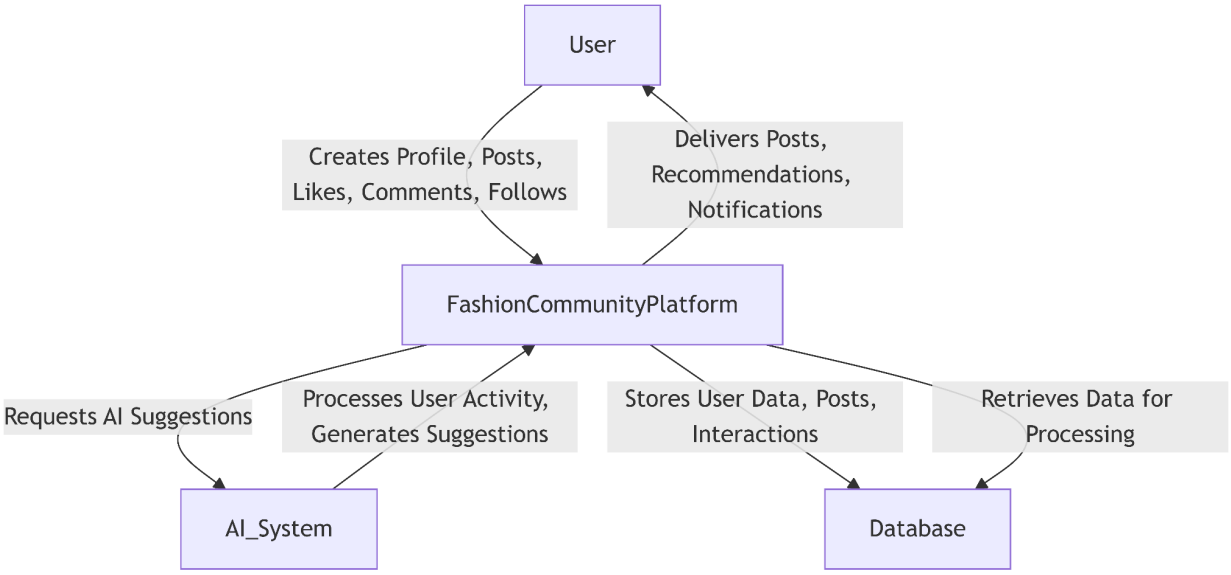
Fashion Community

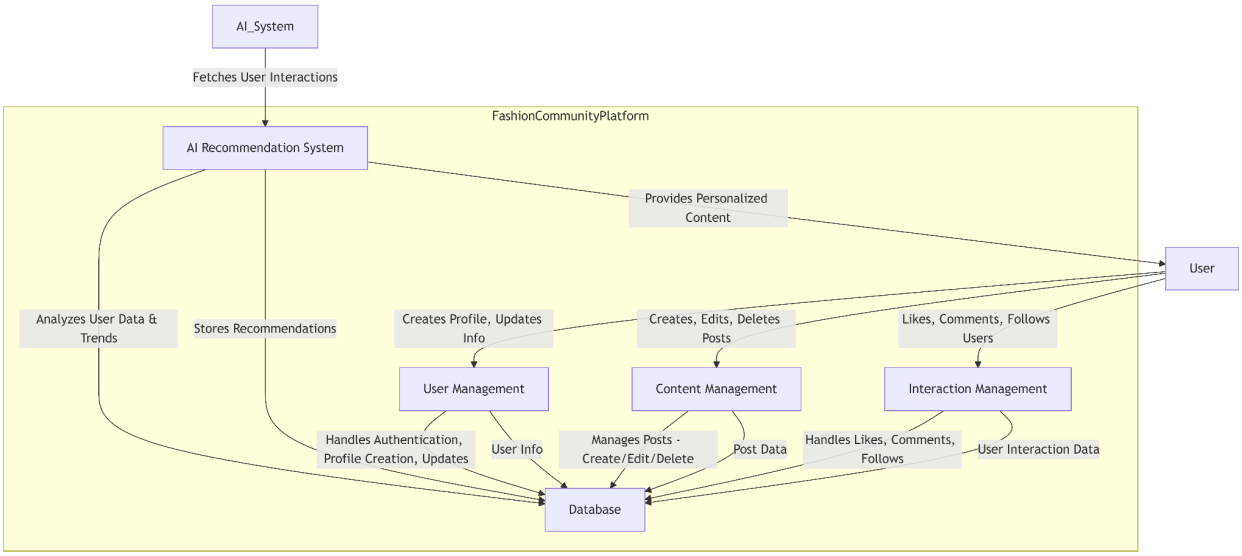
DFD, ER-Diagram, Data Dictionary, and Structured Chart

DFD

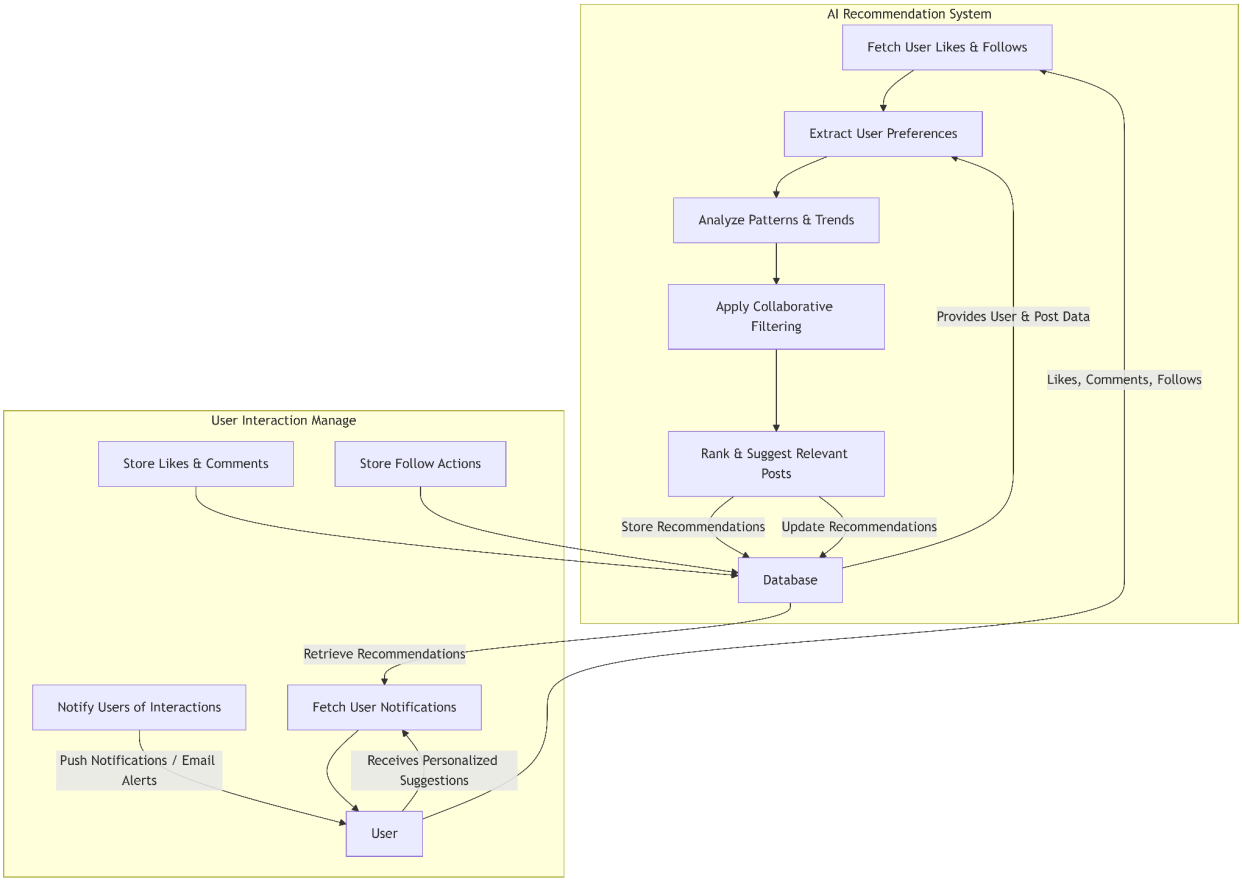
- Level 0



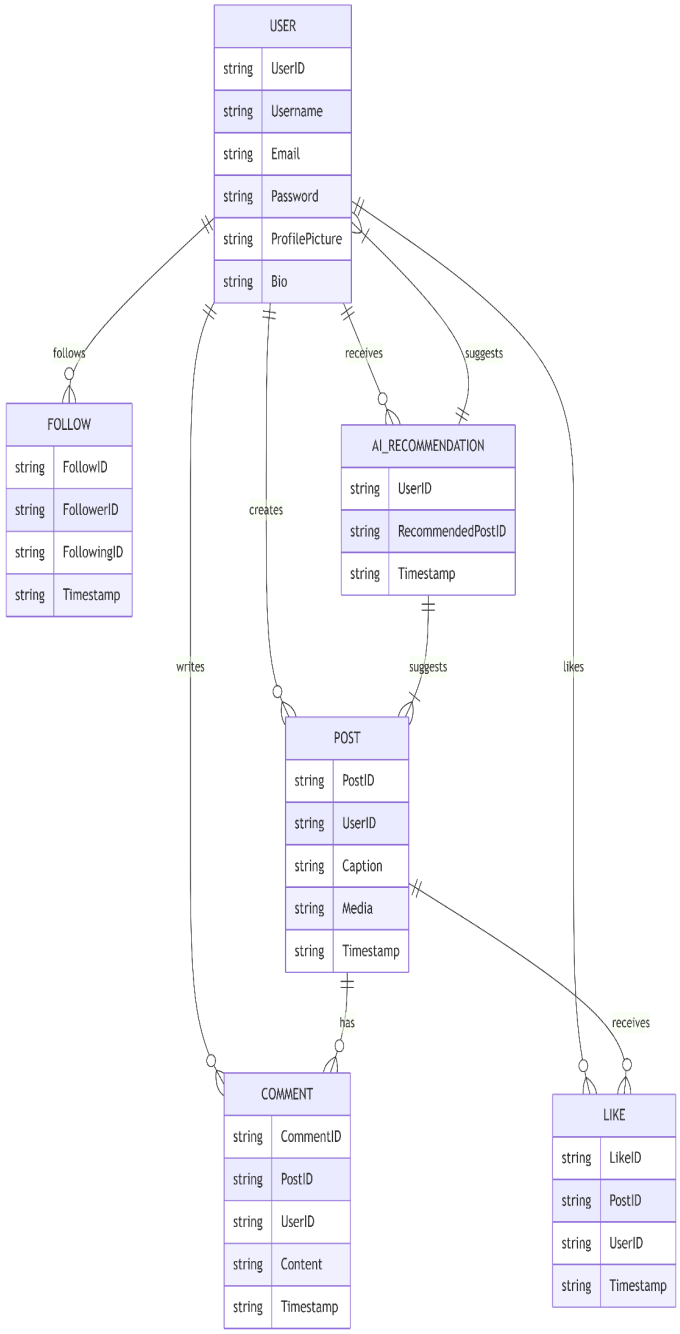
- Level 1



- Level 2


AI Recommendation System
Fetch User Likes & Follows
Extract User Preferences
Analyze Patterns & Trends
Apply Collaborative Filtering
Rank & Suggest Relevant Posts
Store Recommendations
Update Recommendations
Database
Provides User & Post Data
Likes, Comments, Follows
User Interaction Manage
Store Likes & Comments
Store Follow Actions
Retrieve Recommendations
Notify Users of Interactions
Fetch User Notifications
Push Notifications / Email Alerts
Receives Personalized Suggestions
User

ER-Diagram


USER
string UserID
string Username
string Email
string Password
string ProfilePicture
string Bio
follows
receives
suggests
creates
writes
suggests
likes
has
receives
FOLLOW
string FollowID
string FollowerID
string FollowingID
string Timestamp
AI_RECOMMENDATION
string UserID
string RecommendedPostID
string Timestamp
POST
string PostID
string UserID
string Caption
string Media
string Timestamp
COMMENT
string CommentID
string PostID
string UserID
string Content
string Timestamp
LIKE
string LikeID
string PostID
string UserID
string Timestamp

Data Dictionary

Keys	Values
Name	User
Aliases	None
Where or how is it used?	Used for authentication, post creation, following other users, and interaction with posts.
Description	User = UserID + Username + Email + Password + (ProfilePicture) + Bio + {Follower}n + {Following}n
UserID	Unique identifier for each user
Username	Display name for the user.
Email	Email address used for authentication.
Password	Encrypted password for login.
ProfilePicture	Optional profile image.
Bio	Short user description.
Follower	Users following the user.
Following	Users followed by the user.

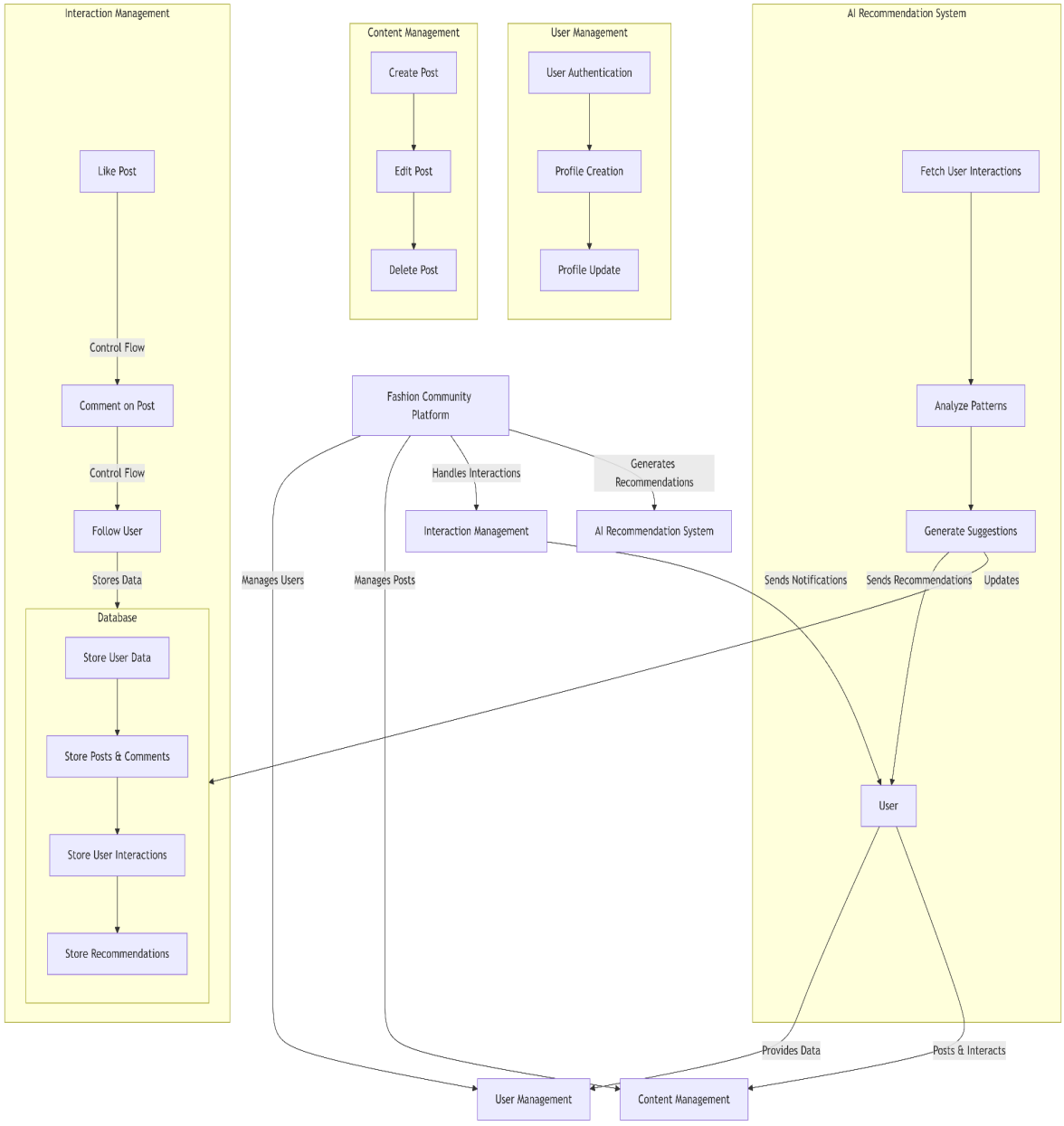
Keys	Values
Name	Post
Aliases	None
Where or how it's used?	Created by users and displayed in feeds.
Description	Post = PostID + UserID + Caption + (Image/video) + Hashtag + Timestamp + Like + Comment
PostID	Unique identifier for each post.

UserID	Identifier for the user who created the post.
Caption	Text description of the post.
Image/Video	Optional media content.
Hashtag	Tags associated with the post.
Timestamp	Date and time when the post was created.
Like	Users who liked the post.
Comment	Users' comments on the post.

Keys	Values
Name	Comment
Aliases	None
Where or how it's used?	Users comment on posts.
Description	Comment = CommentID + PostID + UserID + Content + Timestamp
CommentID	Unique identifier for each comment.
PostID	Identifier of the post being commented on.
UserID	Identifier of the user commenting.
Content	Text content of the comment.
Timestamp	Date and time of the comment.

Keys	Values
Name	Like
Aliases	None
Where or how it's used?	Users like posts.

Description	Like = LikeID + PostID + UserID + Timestamp
LikeID	Unique identifier for each like.
PostID	Identifier of the post being liked.
UserID	Identifier of the user liking the post.
Timestamp	Date and time of the like.

Keys	Values
Name	Follow
Aliases	None
Where or how it’s used?	Users follow other users.
Description	Follow = FollowID + FollowerID + FollowingID + Timestamp
FollowID	Unique identifier for each follow action.
FollowerID	Identifier of the user following someone.
FollowingID	Identifier of the user being followed.
Timestamp	Date and time when the follow action was made.

Structured Chart