**Welcome to ERD Diagram**

**ERD Diagram :**

Here are the models for which we need to create schemas, along with a detailed explanation of each model

**USER**

It is used for registering user in three mode

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **username** | STRING, UNIQUE, REQUIRED  It would be unique and check from both model either from user model to check if it is already present or not or admin model to check its availability. This is used for log in user so user can login with username too. |
| **mobile\_number** | NUMBER, UNIQUE, REQUIRED  It would be unique and check from both model either from user model to check if it is already present or not or admin model to check its availability. This is used for log in user so user can login with mobile number too. |
| **Is\_mobile\_number\_verified** | BOOLEAN DEFAULT (FALSE)  It is used to add check and make logic based on mobile verification when mobile is verified by sending otp to this mobile number after successful verification this property turned to true means it is verified and we can make decision according to it. |
| **email** | STRING UNIQUE REQUIRED  It would be unique and check from both model either from user model to check if it is already present or not or admin model to check its availability. This is used for log in user so user can login with email too. |
| **is\_email\_verified** | BOOLEAN DEFAULT (FALSE)  It is used to add check and make logic based on email verification when email is verified by sending otp to this added email account after successful verification this property turned to true means it is verified and we can make decision according to it. |
| **country\_code\_id** | ObjectId REQUIRED REFERENCE with Country Model  It is reference if of country code \_id to embed document of country code inside user table to detect which country this mobile number belongs to |
| **password** | STRING REQUIRED  It is password field having hashed form of string user passes for its password based on bcrypt algorithm having string algorithms for having them encrypted so it can’t be access by owner of website |
| **current\_active\_state** | STRING REQUIRED  It is enum used to detect what type of user he want to be registered firstly he will register as a temporary user. It has following values  TEMPORARY  ISSUERER  BUYER |
| **issuer\_id** | ObjectId OPTIONAL REFERENCES with Issuer model  It is used to make reference with issuerer model when user want to issue any bonds then he has to change his account type from temporary to issuer or then it will have this id other may be have null value |
| **buyer\_id** | ObjectId OPTIONAL REFERENCES with Buyer model  It is used to make reference with buyer model when user want to buy any bonds to help creators to give sponsorship then he has to change his account type from temporary to issuer or then it will have this id other may be have null value |
| **level\_id** | ObjectId OPTIONAL REFERENCES with Level model  It is used to make reference with Level model when user change his level from 1 to 2 based on credibility this id is present first when account type changes this model by default has level 1 value |
| **payment\_method\_id** | ObjectId OPTIONAL REFERENCE With payment method id  It is used to add payment method model used to make purchase based on these model |

|  |  |
| --- | --- |
| **payment\_method** | STRING OPTIONAL  It is enum having values depends on your application what kind of payment method you are going to apply generally it has CASH STRIPE GOOGLE\_PAY PAYPAL options |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**COUNTRY CODE**

It is used to list all the countries where you provide services for sending SMS and OTP notifications, based on user actions.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **country\_code** | STRING, UNIQUE, REQUIRED  It is used to add codes of all countries to facilitate the ability of application to add features of sending sms on mobile number using all countries using paid services like twilio or mailgun |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**ISSUERER**

It is used to transition a user from a temporary status to an issuer, enabling them to issue new sponsor bonds.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **User\_id** | ObjectId REQUIRED  It is used to detect he is demanding this kind of request. |
| **profile\_img\_id** | ObjectId REQUIRED REFERENCE to FileObject  We will use common algorithm for saving images and we save full img path and folder name where is the parent location of this to update or delete file purpose and move file into that location. |
| **social\_media\_platform\_id** | ObjectId Required REFERENCE to social media model  It is used to detect which platform he belongs to it may be array of object id to get details of it. |
| **Is\_verified** | Boolean Default false  It is used to check this account is verified or because user may have more than one social media links so we need to verified all of them. |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**BUYER Model**

It is used to change a user's account type from temporary to buyer, allowing them to purchase bonds and sponsor creators.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **User\_id** | ObjectId REQUIRED  It is used to detect he is demanding this kind of request. |
| **Profile\_img\_id** | ObjectId REQUIRED REFERENCE to FileObject  We will use common algorithm for saving images and we save full img path and folder name where is the parent location of this to update or delete file purpose and move file into that location. |
| **Social\_media\_id** | ObjectId Required REFERENCE to social media model  It is used to detect which platform he belongs to it may be array of object id to get details of it. |
| **Is\_verified** | Boolean Default false  It is used to check this account is verified or because user may have more than one social media links so we need to verified all of them. |
| **Created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**SOCIAL\_MEDIA\_PLATFORMS Model**

It is used to add the social media platforms we offer, enabling users to create sponsor bonds and missions.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **name** | Enum (TIKTOK, FACEBOOK, INSTAGRAM, YOUTUBE)  It is used to give constants to this property so only these platform we can add we wll use script to add them automatically. |
| **Created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**SOCIAL\_MEDIA Model**

It is used to add details of a specific user's social media accounts.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **social\_media\_platform\_id** | ObjectId REQUIRED REFERENCE to social\_media\_platform model  It is used to make reference with social media platform to detect what social media he is talking about |
| **social\_media\_link** | String required  This is the influencers social media link |
| **Is\_verified** | Boolean default false  Admin or operator will verify his account then he will give blue or green tick to user account |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**FILE\_OBJECT Model**

It is used to upload any type of file that a user needs to submit.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **File\_path** | String REQUIRED  It is used to give complete path of the file that is uploaded on our or we use other platforms for our services. |
| **Folder\_name** | String  It is used to detect that parent of file where is located to send new files to that folder etc… |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**REQUEST Model**

It is used to submit various requests, such as leveling up or seeking approval for specific actions. This model enables users to send requests to the admin for approval or rejection.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **request\_type** | enum REQUIRED (LEVELUP, ISSUERER, BUYER)  It is used to detect which type of request it is to send to admin |
| **user\_id** | ObjectId REQUIRED  It is used to detect he is demanding this kind of request. |
| **Request\_tags** | Enum for (ADMIN, URGENT, NORMAL)  It is used to detect who will see this request to approve it |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**NOTIFICATIONS Model**

This model is used to send and receive notifications of all types.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **entity** | enum REQUIRED (All Models Name)  This is to find out what this notification is about |
| **entity\_id** | ObjectId REQUIRED  It is used to embed document of that kind in notification model |
| **From\_user\_id** | ObjectId REQUIRED  It is used to find out this notification came from this user or admin |
| **to\_user\_id** | ObjectId REQUIRED  It is used to find out who will receive this notification. |
| **Tags** | Enum for detecting urgency of notification  It is used to detect what type of notification it is to show label against it |
| **Deep\_link** | String REQUIRED  When user tabs or click on notification what page we want to show or land |
| **Is\_read** | Boolean  It is used to detect this notification is read or not |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**LEVELS Model**

This model is used to define user levels and the associated permissions or capabilities for each level.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Level\_name** | enum REQUIRED (LEVEL1 to LEVEL30)  This is to find out level or position of specific user |
| **description** | String REQUIRED  It is to add complete details of this level and based on these document user can understand what kind of services he will get after receiving this kind of level. |
| **Created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**REFRESH TOKEN Model**

This model is used for user authentication, allowing users to obtain a new access token based on their refresh token. It also tracks the number of devices the user is currently logged into. When the user logs out, the refresh token becomes expired, making this model essential for managing user sessions.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **token** | String REQUIRED  This is the actual token we will save to our database and it is created using any service like jsonwebtoken |
| **Hashed\_token** | String REQUIRED  It is the hashed form of token we will send to our users to add encryption layer inside this system |
| **Is\_expired** | Boolean default False  When user click on logout api then this token is expired no one can get new access token based on this property |
| **user\_type** | Enum (ADMIN, USER)  We have separated users normal to admin user like manager operator so we need to detect who is owner of this token that is why we use this property |
| **user\_id** | ObjectId REFERENCE to That model USER or ADMIN  It is used to embed document of specific model based on user\_type |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**DOCUMENTS Model**

This model is designed to manage written documents, such as PDFs of contracts. It facilitates the approval and rejection process for these documents and allows users to re-upload them as necessary.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **File\_path\_id** | ObjectId REQUIRED  It is used to save file path or location of our document where it is created |
| **Is\_uploaded** | Boolean default false  It is the used to detect whether document is uploaded or not and show status of ui in the frontend |
| **Is\_approved** | Boolean default False  It is used to find status of document is this approved or not |
| **Is\_rejected** | Boolean default false  It is used to find status when document is rejected or not |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**SPONSER\_BONDS Model**

This model is used to identify the sponsorship commitments made between issuers and buyers, allowing the system to track which buyer sponsors which creator.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Issuer\_id** | ObjectId REQUIRED  It is user id that want to get sponsorship from buyer |
| **Evluation\_id** | ObjectId  It is id of evluation that buyer gives after mission is completed |
| **Title** | String  It is title of the bond |
| **Buyer\_id** | ObjectId REQUIRED  It is the user\_id of the buyer who is giving sponsorship to someone |
| **Bond\_price** | Number  It is price he decided to give sponsorship |
| **photos** | Array string  It is used for verification of the issuer |
| **Social\_media\_links** | Array string  It contains social media links of influencer |
| **Total\_bonds** | Number  It is used to detect how much bonds he will provide |
| **bond\_issuerance\_amount** | Number It is the amount he decided to give to the creator |
| **status** | String enum PENDING, APPROVED, REJECTED  It is the status based on it we can decide what is current state of bonds |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**SPONSER\_MISSIONS Model**

When a sponsorship bond is created, the next step is to initiate the creation of a sponsorship mission. This mission will outline the specific tasks or activities the issuer needs to complete to fulfill the sponsorship agreement.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **bond\_id** | ObjectId REQUIRED  It the sponsorship bond id we will give to get documentof bonds document |
| **description** | String REQUIRED  It is description of 300 words to explain everything what benefits both can get from each other |
| **Task\_type** | String  It tells what the mission of the issuer is |
| **status** | String enum PENDING, APPROVED, REJECTED  It is the status based on it we can decide what is current state of bonds |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**PAYMENT METHODS Model**

Whenever a transaction occurs in our application, we must register the payment method used, such as Stripe, PayPal, cash, or others. This allows us to present users with available payment options for their transactions.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Method\_name** | enum REQUIRED  It the names of methods we will give to our website |
| **ssid** | ObjectId  It is ids of payment method or other things we need we will add these properties |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**TRANSACTION Model**

Whenever a transaction is made in our application, we need to register the payment method used, such as Stripe, PayPal, cash, or others. This ensures that users are aware of the various payment options available to them for completing their transactions.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Payment\_method\_id** | ObjectId REQUIRED  It is used to detect the type of payment method. |
| **User\_id** | ObjectId REQUIRED  It is used to detect user who is making transaction |
| **Transaction\_type** | Enum made by PAYPAL STRIPE CASH OR anyothers  It is used to detect the transaction type |
| **amount** | Number  It is the amount he paid during this transaction |
| **status** | Enum  It is used to detect the status of transaction mens he try to make transaction and find out it is failed or not |
| **description** | String  It is used to explain the transaction |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**PENALITY Model**

Whenever the contract is not fulfilled and the mission remains incomplete, the user incurs a penalty that must be paid.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **user\_id** | ObjectId REQUIRED  It is the user who need to pay again |
| **Penality\_reason\_id** | ObjectId  It is the reference of penality reason |
| **amount** | Number  It is the amount of penality he need to give |
| **status** | String  It is used to detect current state of penality |
| **Imposed\_by\_which\_bond** | ObjectId  It is bond id to detect on which bond he need to get penality |
| **imposedBy** | Object  It is buyer id who make request for penality raises |
| **Transaction\_id** | Objectid  It is transaction id if he made some transactions |
| **description** | String  It is complete explaination of these |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**PENALITY\_REASON Model**

Our platform will provide default penalty reasons, and users will also have the option to create custom penalty reasons. This functionality is used to manage and document the penalties associated with incomplete missions or contracts.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **reason** | String  It is predefined reason when due to which penalty raised |
| **amount** | Number  It is the amount he need to give back |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**OTP Model**

This model is used to register and verify accounts via email or mobile number. It ensures that users provide valid contact information during the registration process.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **otp** | String  It is six character code |
| **entity\_type** | Enum mobile or email  It is used to detect whether it is used for mobile or email purpose |
| **user\_id** | ObjectId  It is the id user who is registering |
| **Is\_expired** | Boolean  After first use it must be expired |
| **Expired\_at** | Date  Time when by default it is expired |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**ADMIN Model**

This model serves as the second layer of authentication, allowing for the registration of administrators and the assignment of specific roles. Each admin is granted permissions to perform only designated actions within the system, ensuring a controlled and secure environment.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **email** | STRING UNIQUE REQUIRED  It would be unique and check from both model either from user model to check if it is already present or not or admin model to check its availability. This is used for log in user so user can login with email too. |
| **Password** | STRING REQUIRED  It is password field having hashed form of string user passes for its password based on bcrypt algorithm having string algorithms for having them encrypted so it can’t be access by owner of website |
| **Security\_code** | Number  It is 4 digit code used when login or reset password request it will check there |
| **Security\_name** | String  It is a random string used to reset password request |
| **Profile\_img\_id** | ObjectId  It is file object id to save profle image |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**ROLES Model**

This model enables the creation of new roles for our website, allowing for the customization of user permissions and access levels based on specific responsibilities or functions within the platform.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Role\_name** | String  It is the name we will give to new role |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**PERMISSIONS Model**

This model allows us to define new permissions for our website, specifying the actions and access levels that different user roles can perform within the platform.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Permission\_name** | String  It is permission name we will give to new permission |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**ROLES PERMISSIONS Model**

This model allows us to assign specific permissions to designated roles, ensuring that users with those roles have the appropriate access and capabilities within the platform.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Role\_id** | ObjectId  It is the role id whom we will give permission |
| **Permission\_id** | ObejctId  It is permission id we will assing here |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |

**Evaluation Model**

This model defines the evaluation that a buyer gives at the end of each bond.

|  |  |
| --- | --- |
| **Props.** | Purpose |
| **\_id** | Mongoose.Types.ObjectId  It is unique identifier used for making references with other for embedding documents in other documents |
| **Buyer\_id** | ObjectId  This represents the unique identifier for the buyer. |
| **Issuer\_id** | ObjectId  This represents the unique identifier for the issuer. |
| **Bond\_id** | ObjectId  This represents the unique identifier for the bond. |
| **rating** | Number  It is the rating that a buyer gives to the issuer at the end of bond |
| **comment** | String  It is the comment that buyer places for the issuer |
| **created\_at** | Date  It is used to detect what was the time when this model created this is timestamp default behavior |
| **updated\_at** | Date  It is used to detect what was the time when this model updated this is timestamp default behavior |