**Database Relational Schema**

**1. Users Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| UserID | ObjectId | Unique identifier for each user |
| Name | String | Unique username for the user |
| Email | String | User's email address |
| PasswordHash | String | Hashed password for authentication |
| AccountType | String | Type of account (e.g., Freelancer, Client) |
| Bio | String | Bio of a user |
| ProfilePicture | File | Profile picture of the user |
| TotalEarnings | Float | Earnings of a freelancer. Will be null for a client. |

**2. Jobs Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| JobID | ObjectId | Unique identifier for each job |
| Title | String | Title of the job |
| Description | String | Description of the job |
| Budget | Number | Budget allocated for the job |
| Deadline | Date | Job completion deadline |
| Status | String | Current status of the job (e.g., Open, Closed) |
| ClientID | ObjectId | Reference to the user who posted the job |
| CreationDate | Date | Timestamp of jobcreation |
| SkillsRequired | String | Skills required for job completion |

**3. Proposals Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| ProposalID | ObjectId | Unique identifier for each bid |
| JobID | ObjectId | Reference to the project being bid on |
| FreelancerID | ObjectId | Reference to the user who made the proposal |
| BidAmount | Number | Amount the freelancer is bidding |
| CreatedAt | Date | Shows time of proposal issue |
| Status | String | Current status of the bid (e.g., Accepted, Rejected) |
| DeliveryTime | Date | Time for how long freelancer will take to complete job |
| CoverLetter | File | (Optional) File that highlights skills of freelancer |

**4. Messages Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| MessageID | ObjectId | Unique identifier for each message |
| SenderID | ObjectId | Reference to the user who sent the message |
| ReceiverID | ObjectId | Reference to the user who received the message |
| Attachment | String | File sent with the message |
| Timestamp | Date | Timestamp of message creation |
| MessageText | String | Content of the message. |

**5. Portfolios Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| PortfolioID | ObjectId | Unique identifier for each portfolio |
| FreelancerID | ObjectId | Reference to owner of portfolio |
| Title | String | Portfolio title |
| Description | String | Description of the portfolio |
| Attachments | File | File sent with the message |
| CreatedAt | Date | Timestamp of message creation |

**6. Skills Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| SkillsID | ObjectId | Unique identifier for each skill |
| Name | String | Name of skill |
| Experience | Integer | Shows how many years of experience done on a skill |
| FreelancerID | ObjectID | Reference to who is this skill of |

**7. Transactions Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| TransactionID | ObjectId | Unique identifier for each transaction |
| Status | String | Current status of the transaction (e.g., Pending, Done) |
| ContractID | ObjectId | Reference to the user which contract this transaction is of |
| PaymentID | ObjectID | Reference of which payment details to use |
| Date | Date | Timestamp of transaction creation |

**8. Payments Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| PaymentID | ObjectId | Unique identifier for each payment detail |
| Bank Name | String | Name of bank |
| Payment Method | String | Type of payment (e.g., Bkash, Nagad, Credit Card) |
| UserID | ObjectID | Reference of which user this payment detail belongs to |

**9. Contracts Table**

|  |  |  |
| --- | --- | --- |
| **Field Name** | **Data Type** | **Description** |
| ContractID | ObjectId | Unique identifier for each contract |
| ClientFeedback | String | Feedback from client on freelancer |
| FreelancerFeedback | String | Feeback from freelancer on client |
| ClientRating | Number | Rating from client |
| FreelancerRating | Number | Rating from freelancer |
| StartDate | Date | Job start date |
| EndDate | Date | Job completion issued date |
| Status | String | Current status of the job (e.g., Doing, Done) |
| FreelancerID | ObjectId | Reference to the freelancer who did the job |
| ClientID | ObjectId | Reference to the client who issued the job |
| JobID | ObjectId | Reference to the issued job |