Please Note this is not Mandatory if you have time feel free to attempt it as this will increase your knowledge in domain

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you senior engineer at ABC CORP and ABC corp is designing  next generations tickets system that helps clients  to navigate through their platform. As Senior Engineer you are asked to Model the data and design a backend which can give all information to front end team

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Here are attributes for users

|  |
| --- |
| User |
| UserID |
| Name |
| Alias |
| ProfilePicture |

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Tickets Will have following attributes

|  |
| --- |
| Tickets |
| TicketsID |
| TicketName |
| Ticket Description |
| Ticket Status |
| Due Date |

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Access patterns

For Given Users fetch all Tickets Assigned to them

For Given User fetch Tickets where status is blocked or closed

For Given Tickets who are user assigned to it and also what is status of tickets

For given tickets fetch the name and description about tickets

For user fetch their details

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Design System using DynamoDB

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In future ABC Corporation also decides to add new features where users can comment on tickets design your system accordingly

Entity

|  |  |  |
| --- | --- | --- |
| User | Tickets | Status |
| UserID (REQ) | TicketsID (Req) | Created |
| Name | TicketName | Blocked |
| Alias | Ticket Description | progress |
| ProfilePicture | Ticket Status |  |
| TicketsID (Req) | Due Date |  |
|  | UserID (REQ) |  |

Access Pattern

|  |  |  |
| --- | --- | --- |
| User | Tickets | Status |
| UserID (REQ) | TicketsID (Req) | Created |
| Name | TicketName | Blocked |
| Alias | Ticket Description | progress |
| ProfilePicture | Ticket Status |  |
| TicketsID (Req) | Due Date |  |
|  | UserID (REQ) |  |

DynamoDB Data

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | GSI2 SK1 | GSI2 SK1 |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | GSI1 SK2 | GSI1 SK1 |  |  |
| PK | SK | user\_data | ticket\_title | ticket\_desc | due date | status | GS1 PK | GSI2 |
| User#1 | user#1ticket#1 | {"username":"soumil", "profile\_pictures":"s3:xxxx", "alias":"SS"} | "" | "" |  |  | Ticket#1 |  |
| user#1ticket#2 | {"username":"soumil", "profile\_pictures":"s3:xxxx", "alias":"SS"} | "" | s3:xxx |  |  | Ticket#2 |  |
| User#2 | user#2ticket#3 | {"username":"Nitin", "profile\_pictures":"s3:xxxx", "alias":"NS"} | "" | s3:xxx |  |  | Ticket#3 |  |
| user#2ticket#2 |  |  |  |  |  | Ticket#2 |  |
| Ticket#1 | Ticket#1#User#1 |  | Work on doc | s3:xxx | "2022-01-01" | OPEN |  | User#1 |
| Ticket#2 | Ticket#2User#1 |  | Work on doc | s3:xxx | "2022-01-12" | Close |  | User#1 |
| Ticket#2 | Ticket#2User#2 |  | Bug fix modal issue | s3:xxx | "2022-01-21" | Progress |  | User#2 |