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COMPUTER STUDIES DEPARTMENT

Skybound Airlines Flight Booking System

Submitted by:

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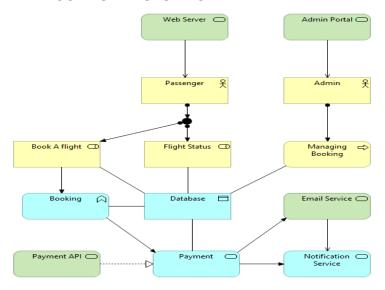
S.Y: 2024-2025



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Questions:

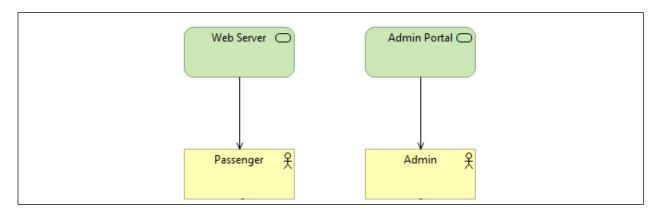
- 1. In your group, give the possible advantages of separately designing each enterprise architecture layer to create the system architecture. Rationalize your answer.
- For us it gives us more efficient and understandable way how our enterprise will work, reduced complexity of system, provides better decision making by aligning it to IT, also able to know the possible risks and reduce technology risks.
- 2. In your group, what is the importance of knowing the appropriate elements in designing a system architecture?
- In our group the importance of this is we will be aware of designing in a right way, we avoid errors and the process flow of the architecture is very well explained, we are all able to know resource optimization, scalability and growth because of the organization adaptability we are able to sustain what are the customer's demands and needs.



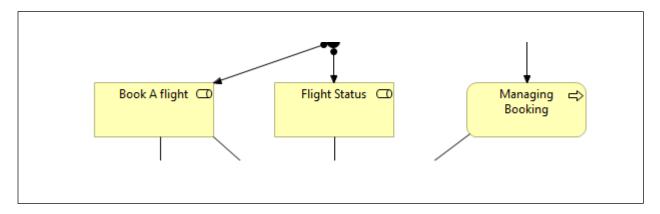
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Discuss/Explain: As you can see the user is facing components that interacts with the user (Passenger or Admin) The web server here serves hosts the passenger. Admin portal serves as the interface for admin functions. Key relationships Web server to (passenger), Admin portal to (Admin) that has a both (Serving relationship). The purpose of this is to provide a user-friendly interaction and provide a seamless interaction with our system.



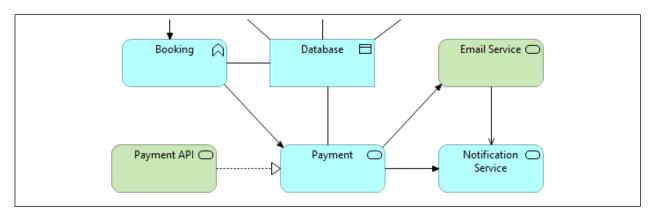
Discuss/Explain: As you can see, the user/passenger has two components that are accessible: book a flight and flight status. Book a flight shows the user's booking details, such as where he is going and where he is coming from, and more. As for the flight status, the user/passenger can see here the specifics of his flight, including its distance, duration, and other details. The admin can see the available booking schedules and other details here in manage booking.



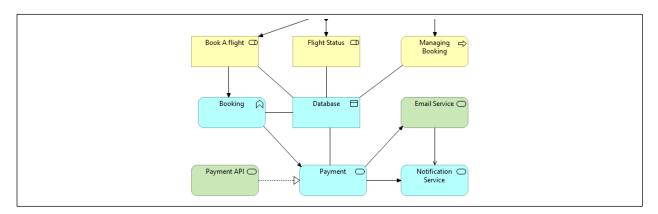
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Discuss/Explain: You can see in this image that after the user books, the information will be entered into the database, and he will proceed straight to the payment page. The payment methods, such as G-cash, PayMaya, and others, are displayed in the payment API once the user has made a payment. The user will receive a notification and email from the system verifying the payment has been completed.



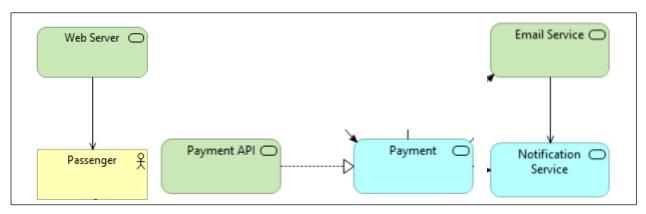
Discuss/Explain: This covers the storage and management of data used across the system. As you can see, there is a database that stores all information related to flights, bookings, payments, and passengers. To connect the following(Flight Status, Book a Flight, Manage Booking, Booking, Payment) to the database we used an association relationship. Its overall purpose is to provide a central repository for all system data and enable reliable data retrieval and storage.



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Discuss/Explain: This covers the infrastructure and services supporting the application components. We have the 'Web Server' where in it hosts and serves application modules which is connected to the passenger through serving relationship, 'Payment API' where in it processes electronic payments securely which is connected to payment module through realization relationship and lastly, 'Email Service' to send email notifications which is connected to notification service through triggering relationship. Its overall purpose is to ensure the system is scalable, secure, and performs efficiently.