**Galactic Voyages-Space Tourism Agency**

A logo on a black background

Description automatically generated

OMIS 652 – Business Application & Database Management Systems

Prof. Kishen Iyengar

**NORTHERN ILLINOIS UNIVERSITY**

**Date of Submission: 05-01-2024**

**Group – D**

Gopinath N – Z1982309

Manasa Rao – Z2010392

Gayatri P – Z2006525

Sandeep B–Z1976378

Manisha Konda – Z2004588

In 2022, Galactic Voyages, our Space Tourism Agency emerged as a trail blazing endeavor, firmly rooted in the bustling city of Chicago, IL. Our mission is to offer exhilarating commercial space travel experiences that ignite the spirit of adventure in intrepid individuals, inspiring them to explore the cosmos and satisfy their innate curiosity and thirst for discovery.

Central to our operational excellence is the Space Tourism Agency’s Branch Table, meticulously crafted to encapsulate our essence. This table is the cornerstone of our organizational framework, nurturing efficient communication channels and facilitating an uninterrupted flow of information. With 15 agencies spanning the globe, each dedicated to delivering unparalleled space exploration experiences, we are committed to offering exceptional journeys beyond the bounds of Earth.

Fueling our journey are the Activities strategically positioned across the globe, meticulously detailed in the Activity Table. Each spaceport boasts cutting-edge facilities, robust infrastructure, and a capacity tailored to meet the burgeoning demand for space travel experiences. These spaceports serve as gateways to the cosmos, facilitating safe and awe-inspiring voyages for our customers.

Our fleet of state-of-the-art Spacecraft, elegantly showcased in the Spacecraft Table, epitomizes innovation and safety. From their varying capacities to the advanced technologies integrated within, our spacecraft are meticulously designed to ensure a secure and enthralling journey beyond Earth's boundaries. It's not just a voyage; it's a transformative experience that leaves an indelible mark on every space traveler's soul.

Central to our success are the skilled and dedicated Astronauts, highlighted in the Astronauts Table. Their extensive training, qualifications, and areas of expertise embody the pinnacle of safety and professionalism, guaranteeing our customers the highest standards of guidance and assurance during every celestial expedition.

In essence, Galactic Voyages is more than just a company—it's a conduit for dreams, a bridge to the unknown, and a testament to human ingenuity. From our headquarters in Chicago, IL, we continue to push the boundaries of space exploration, offering a gateway to the cosmos and a promise of unforgettable experiences that transcend the ordinary.

**Entities ERD:**

A diagram of a company

Description automatically generated

**DB Design:**

A screenshot of a computer screen

Description automatically generated

**Queries Executed:**

1.Listing all customers who have provided feedback and their associated bookings:

SELECT c. Fname, c. Lname, b.Booking\_ID, f.Review, f.Rating

FROM Customer C, Booking b, Feedback f

WHERE c. Customer\_ID = f. Customer\_ID AND b. Customer\_ID = c. Customer\_ID;

A screenshot of a computer

Description automatically generated

2.Finding the most active destination based on the number of bookings:

SELECT d.Name AS Destination, COUNT(b.Booking\_ID) AS TotalBookings

FROM Booking b

JOIN Destination d ON b. Destination\_ID = d. Destination\_ID

GROUP BY d. Name

ORDER BY TotalBookings DESC;

A screenshot of a computer

Description automatically generated

3.calculating the total revenue generated from bookings in a specific destination.

SELECT B.Destination\_ID,SUM(Bi.Price) AS TotalRevenue

FROM Bill AS Bi

JOIN Booking AS B ON B.Bill\_ID = Bi.Bill\_ID

WHERE B. Destination\_ID IN(SELECT Destination\_ID FROM Destination WHERE Name = 'Moon')

GROUP BY B. Destination\_ID;

A screenshot of a computer

Description automatically generated

4.List all customers from a specific Zip, along with the customer details and booking information:

SELECT c.Fname,c.Lname, c.Phone, b.Destination\_ID,b.Bookingdate

FROM Customer c

JOIN Booking b ON b.Customer\_ID = c.Customer\_ID

WHERE c.Zipcode =77001

A screenshot of a computer

Description automatically generated

5.List the Manager\_IDs in a specific Department:

select m.Manager\_ID, d.Department\_ID

from Manager m

Inner join Department d on d.Manager\_ID=m.Manager\_ID

where d.Department\_ID='DP01'

A screenshot of a computer

Description automatically generated

6.Give the second highest salary of the employee:

SELECT MAX(Salary)

FROM Payroll

WHERE Salary < (SELECT MAX(Salary) FROM Payroll);

A screenshot of a computer

Description automatically generated

7.Total number of bills generated with credit:

select count(Bill\_ID)

from Bill

inner join Payment on Payment.Payment\_ID=Bill.Payment\_ID

where PaymentMethod='Credit'

A screenshot of a computer

Description automatically generated

8.Number of Astronauts present in a spacecraft named Faraday:

select count(Astronaut\_ID)

from Astronaut

inner join Spaceraft on Spaceraft.Spacecraft\_ID=Astronaut.Spacecraft\_ID

where Name='Faraday'

A screenshot of a computer

Description automatically generated

9.List employees that are currently astronauts:

select e.Fname,e.Lname,e.Employee\_ID

from Employee e

where e.Employee\_ID in (select Employee\_ID from Astronaut)

A screenshot of a computer

Description automatically generated

10.Enlist all destinations currently Galactic Voyages is offering:

select Name from Destination

A screenshot of a computer

Description automatically generated

11.Customers who gave Average or Poor feedback:

select c.Fname,c.Lname,c.Customer\_ID,f.Review,f.Rating

from Customer c

Inner join Feedback f on f.Customer\_ID=c.Customer\_ID

where f.Review in('Poor','Average')

A screenshot of a computer

Description automatically generated

12.Mention the spacecraft details present in AG001.

select \* from Spaceraft

where Agency\_ID='AG001'

A screenshot of a computer

Description automatically generated

13.Fetch April Payroll of Employee named “john blake”:

select Salary from Payroll

where Employee\_ID=(select Employee\_ID from Employee where Fname='John' and Lname='Blake') and PaymentDate='2024-04-01'

A screenshot of a computer

Description automatically generated

14.List the spacecrafts present in AG003 and AG002 in order of Agency IDs in ascending order:

select \* from Spaceraft

where Agency\_ID in ('AG003','AG002')

Order by Agency\_ID

A screenshot of a computer

Description automatically generated

15.Enlist bills that are not paid yet:

Select \* from Bill where Payment\_ID in (select Payment\_ID from Payment where status='Not paid')

A screenshot of a computer

Description automatically generated

**Conclusion:**

Our space tourism agency project has been a journey marked by significant achievements and strategic insights. Through meticulous data integration across astronauts, spacecraft, customers, bookings, and feedback, we've enhanced operational efficiency and decision-making capabilities. A customer-centric approach embedded in our data model has enabled personalized experiences, improved service delivery, and heightened customer satisfaction. Leveraging data analytics, we've gained valuable strategic insights, optimizing resource allocation, and identifying trends for future growth. Our project's scalable design sets the stage for continued innovation and expansion, allowing us to embrace emerging technologies and lead in revolutionizing space tourism experiences.