



19CSE202 DATABASE MANAGEMENT SYSTEMS

L-T-P-C: 3-0-3-4



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INTRODUCTION

Overview of DBMS

Data → Database

- **Data** : Facts/characteristics about any object under consideration
- **Database (DB)** is
 - Very large, Interrelated, and organized collection of data
 - Models real world entities
 - Designed, built and populated with data from a specific domain for specific purposes

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BOOK TICKET

From

DD/MM/YYYY *

31/08/2021



To

All Classes

GENERAL

- ☐ Divyaang Concession ☐ Flexible With Date ☐ Train with Available Berth
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Internet Ticketing Services will not be available for trains originating from SR(Southern Railway), SCR(South Central Railway) and SWR(South Western Railway) from 00:20 hrs to 04:15 hrs of 25.08.2021, 00:20 hrs to 02:00 hrs of 28.08.2021, 00:20 hrs to 02:00 hrs of 29.08.2021 and 00:20 hrs to 02:00 hrs of 30.08.2021 due to maintenance activity. Inconvenience caused is deeply regretted.

What is DBMS?



- **Database Management Systems (DBMS)**

- A general purpose application software to make sense out of DBs
- Extension of human logic
- Users of DBMS can
 - Define, construct and Manipulate DBs for various applications in a flexible and convenient manner.

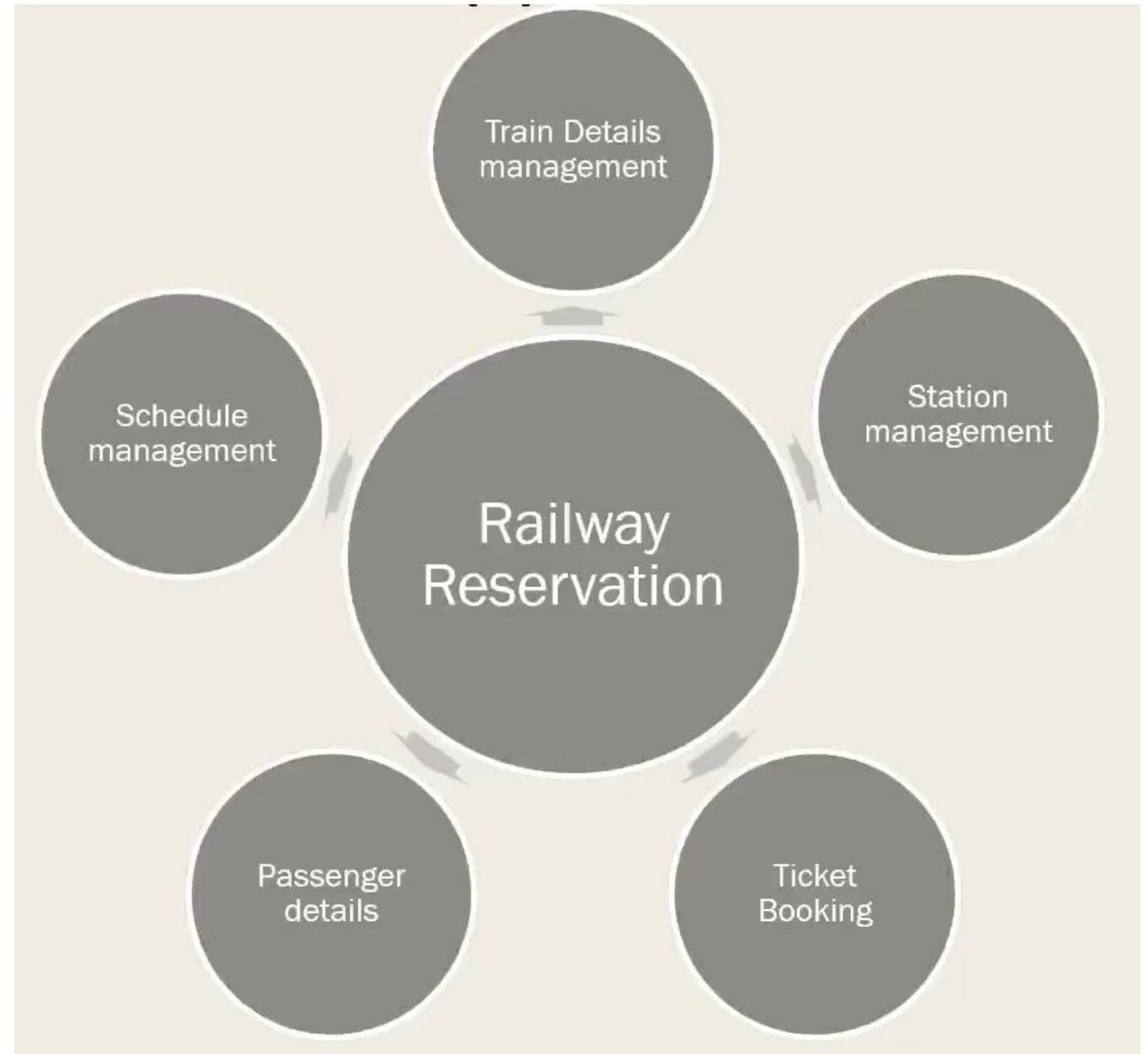
- **Database System**

- DB + DBMS

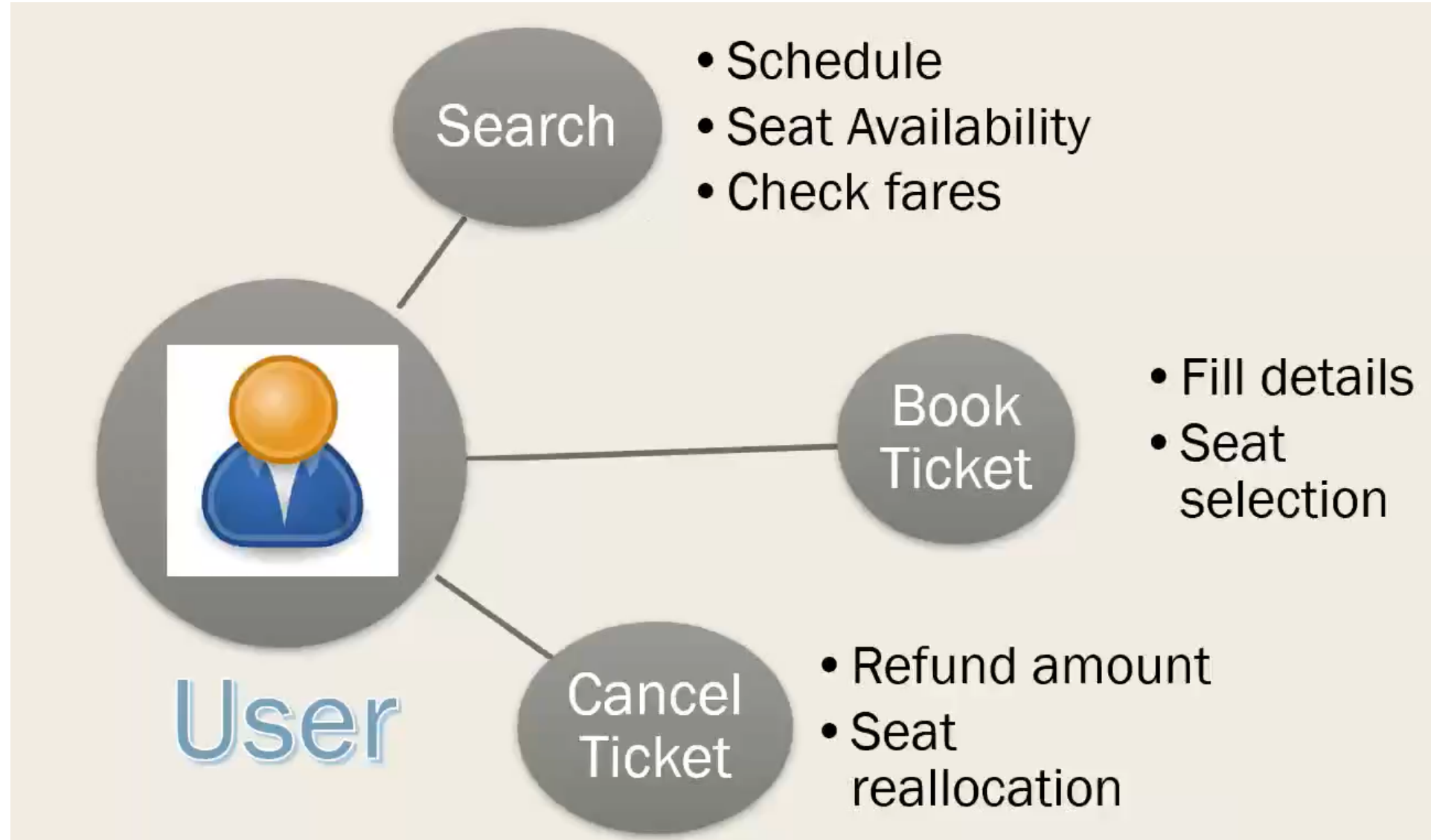
Why Study DBMS?

- DBMS is the asset for any enterprise?
 - Shift from computation to information
 - Voluminous and diverse data to be managed everywhere.
- Placements: Every CS Engineering should have good knowledge of DBMS
 - Database programmers and Database Administrators hold rewarding jobs
- DBMS is the essential part of Core Computer Science
 - Subsumes Programming Languages, Algorithms, Logic, Discrete Maths, and Theory of Computation
- Research: Lots of interesting problems to work upon in theory as well as in practices.

Railway DB and its Applications



Use Cases : Reservation



Why DBMS?

- Application Programs to accomplish various tasks.
 - Storage, manipulation and Information Retrieval
- Increased secured accessibility of data
- Effective data integration across the branches of an industry/enterprise.
- Data Consistency
- Good interface intuitively understood by the user
- High quality information at the tip of one's finger

Database Application Programs

■ For Railways DB

- *Add new passengers, new stations, new trains*
- *Reservation for passengers*
- *Allocate stations halts for trains, seats for passengers, generate reservation chart*
- *Etc.....*

■ For Banking DB

- ??

Computation to Information

- How many trains are scheduled on Wednesday from Ahmedabad to Kochi?
- What all are the stations where Rajdhani halts for more than 15 minutes ?
- Which train did Mr. Shah travelled during Jan 2020 – March 2020 ?
- Who all travelled with Ms. Shalini on 21st March 2020 in Train 16534.

THANK YOU

