



NETAJI SUBHAS UNIVERSITY OF TECHNOLOGY

Practical Report

Database Management Systems

Computer Science Engineering (Internet of Things)
Semester 3

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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1 Introduction

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2 The Sea

2.1 Schema

Consider the following relational schema:

```
SAILORS (sid, sname, rating, date_of_birth)
```

```
BOATS (bid, bname, color)
```

```
RESERVES (sid, bid, date, time_slot)
```

2.2 Queries

1. Find sailors who've reserved at least one boat
 - (a) Relational Algebra

$$\sigma_{\text{rating}=10}(\sigma_{\text{date_of_birth}<1960}(\sigma_{\text{sid}\in\text{sid}}(SAILORS \bowtie RESERVES)))$$

- (b) SQL

```
1  SELECT E.EmpFname, E.EmpLname, P.EmpPosition
2  FROM EmployeeInfo E INNER JOIN EmployeePosition P ON
3  E.EmpID = P.EmpID AND P.EmpPosition IN ('Manager');
```

References

- [1] A. Einstein, “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies],” *Annalen der Physik*, vol. 322, no. 10, pp. 891–921, 1905.