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| Learning method |  the topic | Required learning outcomes | watches | week |
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| Introductory lecture + discussion |

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 | Introduction to Databases |  | First week |
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| Project Analysis Case Study |

 | Database characteristics  |  | The second week |
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| System Design Workshop |
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 | Main stages of database design |  | The third week |
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| Lecture and group discussion |

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 | Create an Entity-Relationship Model (ER Model ) |  | Fourth week |
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| RAD Applications |
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 | (ER Diagram ) Symbols and Terminology |  | Fifth week |
|  | Practical beach using a miniature model | ER Diagrams , Best Practices in Designing ER Diagrams , Exercises |  | Week 6 |
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| Agile Project Status Presentation |

 | Relational algebra |  | The seventh week |
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| Role -play |

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 | Files and Records |  | The eighth week |
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| group activity |
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 | Organizing records within a file |  | Week 9 |
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| Practical lecture​ |

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 |  File Headers |  | Week eleven |
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| Group exercises |

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 |  Hashing Techniques |  | The twelfth week |
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| Actual project analysis |
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 | 1. Hashing Function​
 |  | thirteenth week |