

# JAVA INSTITUTE FOR ADVANCED TECHNOLOGY

## Department of Examinations



COURSE(S) – (LEADING TO)	PROFESSIONAL DIPLOMA IN SOFTWARE ENGINEERING
UNIT NAME	DATABASE MANAGEMENT 1
UNIT ID	H7DX 04
ASSIGNMENT ID	H7DX 04/AS/04
RESEARCH NAME	DESIGN A NORMALIZED ER DIAGRAM USING A SUPPORTIVE TOOL
DESCRIPTION	STUDENTS ARE REQUIRED TO COMPLETE AN INDIVIDUAL ASSIGNMENT TO DESIGN AN ENTITY-RELATIONSHIP DIAGRAM USING NORMALIZATION FORMS BY ANALYZING THE REQUIREMENTS FOR A GIVEN SCENARIO THAT WILL ASSESS THE KNOWLEDGE AND SKILLS, WITH THE ER DRAWING SUPPORTIVE TOOL
DURATION	27th July To 31st July
WORD COUNT	-
SUBMISSION VIA	ONLINE (STUDENT PORTAL)
DOCUMENT FORMAT	MICROSOFT WORD OFFICE DOCUMENT

### GUIDE LINES FOR CANDIDATES

- Students are expected to use reference books, the Internet, journals and other similar sources in order to accomplish the task specified above.
- Students are expected to refrain from repeating any content in their research document.
- Students will be penalised for any plagiarism.

NAME	:	..... (BLOCK CAPITALS)
ADMISSION NO	:	.....
NIC NO	:	.....

## Question

Design an ER Diagram (Physical Model) for “Vehicle fuel consumption & service reminder” application under following requirements

1. Register any number of Sri Lankan vehicles under unique identifier
2. System should be able to keep records about
  - a. Cost per one litter on each refilling with number of litters count
  - b. Gasoline Refilling point address
  - c. Mileage
  - d. Refilling type (patrol, diesel or any other like super diesel)
3. Service station records about
  - a. Vehicle service date
  - b. Next recommend service date or mileage

Details of the evidence requirements are specified below:

1. Student should be able to design Entity-Relationship Diagrams using normalization forms by analysing the requirements for a given scenario as an individual project with the following aspects
2. The diagrams that are designed by the student should ensure the correct cardinality of a table in relation to another table
3. Students should use accurate database notation in the ER diagram.
4. Student should be able to develop ER diagrams using an ER modeling software tool (eg: MySQL Workbench)
5. Student should mention assumptions made during the development of the ER diagram in the documentation

# Assignment Submission Guidelines for Students

Students are advised to strictly follow the guidelines specified herein when formulating and submitting research assignments

## Important Information for Students

1. The assignment should be submitted only as a soft copy in a Microsoft Word format on or before the specified assignment due date.
2. The soft copy of the assignment should be uploaded to the student portal using the SCN number.
3. The submission date provided for all assignments are the final dates on which you can hand upload the assignments. Please note that late submissions are not allowed.
4. Plagiarism is treated as a serious offence and the work you produce should be individual and original. However, note that students will have to work in groups in certain scenarios.
5. All sources of information in any assignment must be referenced using the “Harvard referencing” system, where a reference listing should be included at the end of the assignment.
6. Please contact your branch on assignments, re-submission, and related procedures.
7. Students are expected to maintain a backup of all assignments. The Java Institute for Advanced Technology retains all the rights to re-call soft copies of any assignment at any time during the course.
8. Students should use the attached assignment coversheet and declaration of authentication form to the assignment
9. Students are expected to provide the following information in their assignment coversheet of the softcopy in the CD:
  - Student name
  - SQA ID number
  - NIC No
  - Subject name
  - Subject code
  - Branch.
10. Assignment Report Rules
  - Paper Size:A4
  - Word Count:1500 words
  - Line Spacing:1.5
  - Printing Margin:1 inch on LHS and RHS
  - Binding Margin:½ inch
  - Header and Footer:1 inch

- Printing: Single-sided
- Basic Font Size:12pt
- Heading:16pt
- Sub-headings:14pt, Bold
- Body:12pt, Justified Aligned
- Font Style: Times New Roman/Calibri.