## **Databases**

## Assignment 1 - Ocean Odyssey (OO)

## Assignment 1 Checklist

|     | uuirad | l Acti | one:  |
|-----|--------|--------|-------|
| VEA | uired  | HCI    | 0115. |

| Carefully checked the Marking Rubric in the assignment document so you are aware |   |  |  |  |  |
|--|---|--|--|--|--|
| of the mark allocation   |   |  |  |  |  |
| Task 1   | Task 1: Conceptual Model  |  |  |  |  |
|  | Followed the unit conceptual model notation requirements as listed in your                              |  |  |  |  |
|  | "Conceptual Modelling" Applied material   |  |  |  |  |
|  | All entities and relationships on page 2 of the brief are included, nothing extra                       |  |  |  |  |
|  | added   |  |  |  |  |
|  | KEYs clearly indicated  |  |  |  |  |
|  | All relationships have minimum and maximum cardinality shown, are                                       |  |  |  |  |
|  | indicated as identifying or non-identifying and have appropriate labels                                 |  |  |  |  |
|  | Exported the PDF as an A4 single portrait page  |  |  |  |  |
| Task 2   | : Normalisation   |  |  |  |  |
|  | Normalised the Sample Cruise Itinerary Sheet from UNF to 3NF, showing all                               |  |  |  |  |
|  | stages and dependencies at each step (i.e. partial dependencies in 1NF,                                 |  |  |  |  |
|  | transitive dependencies in 2NF, full dependencies in 3NF). included all                                 |  |  |  |  |
|  | candidate keys for each relation at 1NF   |  |  |  |  |
|  | Included all attributes shown on the form; no extra attributes added                                    |  |  |  |  |
|  | Did <i>not</i> add any surrogate keys in normalisation  |  |  |  |  |
|  | Indicated PK's using underline of the PK attributes   |  |  |  |  |
|  | Completed attribute synthesis, if required  |  |  |  |  |
|  | Checked naming consistency between Conceptual Model and Normalisation                                   |  |  |  |  |
| · · · · · · · · · · · · · · · · · · ·  |   |  |  |  |  |
|  | Followed the unit logical model notation/requirements:  |  |  |  |  |
|  | ☐ Used Crow's foot/Information Engineering notation for the logical                                     |  |  |  |  |
|  | model   |  |  |  |  |
|  | <ul><li>Does not show data types and sizes</li></ul>  |  |  |  |  |
|  | □ Does show legend on the logical model   |  |  |  |  |
|  | □ Does show a label for each relationship   |  |  |  |  |
|  | <ul> <li>Added common prefix for all attributes in each relation (e.g. emp_no,<br/>emp_name)</li> </ul> |  |  |  |  |
|  | <ul> <li>Added comments for all attributes (used comments in RDBMS)</li> </ul>                          |  |  |  |  |
|  | Added at least one surrogate key to the logical model and added an                                      |  |  |  |  |
|  | explanation of why it was chosen to the assumptions document  |  |  |  |  |
|  | No relation with more than two attributes in the key remains (if more than two,                         |  |  |  |  |
|  | a surrogate must be added)  |  |  |  |  |
|  | Included all required check clauses and lookup tables   |  |  |  |  |
|  | Integrated FULL normalisation results (final 3NF) into the logical model - all                          |  |  |  |  |
|  | relations and attributes  |  |  |  |  |
|  | Checked naming consistency between Conceptual Model, Normalisation and                                  |  |  |  |  |
|  | Logical Model   |  |  |  |  |
|  | For each relation, all attributes are shown on the diagram (no downward                                 |  |  |  |  |
|  | pointing diamond displayed to show some attributes are hidden)  |  |  |  |  |

|       | <ul> <li>□ Made sure there are no data anomalies in the final logical model (ie, all relations are in 3NF)</li> <li>□ Schema File</li> <li>□ Has extension .sql</li> <li>□ Included DROP table commands at the head of the schema file</li> <li>□ Has not been edited other than to add a header (student details) and SPOOL/ECHO commands</li> <li>□ Captured run of schema file via SPOOL/ECHO commands, and does not show any errors except for the drop table statements</li> </ul> |
|-------|---|
| Requ  | ired files have been pushed to the FIT GitLab server (at least  |
| three | pushes of Conceptual Model, three pushes of Normalisation   |
| and s | six pushes of Logical Model): oo_conceptual.pdf   |
|       | oo_normalisation source file (source file in repo if MS Word/Pages) and final pdf on GitLab   |
|       | oo_logical.pdf (check this is your final model and produced via File - Print Diagram - To PDF File from within Data Modeller, do not use screen capture)  |
|       | oo_model project folder, which includes:  |
|       | ☐ the oo_logical.dmd file,  |
|       | ☐ and the oo_logical folder   |
|       | You must push this project folder at least six times while you are drawing the model with the Oracle Data Modeler   |
|       | oo_schema.sql   |
|       | oo_schema_output.txt  |
|       | oo_assumptions source file (source file in repo if MS Word/Pages) and final pdf on GitLab   |
| Final | ly, seven individual files have been submitted to Moodle:   |
| 1.    | oo_conceptual.pdf   |
| 2.    | oo_normalisation.pdf  |
| 3.    | oo_logical.pdf  |
| 4.    | oo_model.zip, which includes:   |
|       | o the .dmd file,  |
|       | o and the model folder.   |
|       | You MUST ensure that the zip archive of the model is tested for   |
|       | completeness, i.e. includes both logical and relational models (unzipped and opened in a new location - see video: Preparing Files for Submission in  |
|       | Ed)   |
| 5.    | oo_schema.sql   |
| 6.    | oo_schema_output.txt  |
| 7.    | oo_assumptions.pdf  |