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| **IN SEMESTER (INDIVIDUAL) ASSIGNMENT**  **Answer Key** | |
| **Module Code: COMP 1007.1** | **Module Name: Visual Programming** |
| **Level**: **5** | **Max. Marks: 100** |

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**Instructions to Examiner:**

* **Mark *all* questions.**
* **Deadline of submission: 11/01/2022 23:59**
* **The marks received on the assignment will be scaled down to the actual weightage of the assignment which is 35% marks**
* **Feedback after final evaluation will be provided along with final results**

**Module Learning Outcomes**

The following LOs are achieved by the student by completing the assignment successfully

1. Design and develop applications with the support of an integrated development environment
2. Build and deploy database applications using ADO.Net
3. Design reports using Crystal Reports

**Assignment Objective**

This is an individual assignment aimed to give students the experience to use visual programming language, create simple graphical user interfaces (GUI), and develop data connectivity using ADO.NET and design crystal reports within an applications environment.

**Assignment Tasks**

1. Submit a work proposal for this assignment or before 22/12/2021 (23:59) which must include:

(10 marks)

* Understanding of deliverables – a detail description of deliverables.
* General overview of proposed plan - initial understanding of solution to task2.
* Timeline for completion of the given tasks.
* References (APA 7th edition referencing style) and it should be MEC r-resources.

The work proposal must be submitted in a word file through the link available in Moodle.

**Answer Keys and Marking Scheme:**

* **Understanding of deliverables – a detail description of deliverables (2 Marks)**
* **General overview of proposed plan - initial understanding of solution to task2 (4 marks)**
* **Timeline for completion of the given tasks (2 marks)**
* **References (2 marks)**

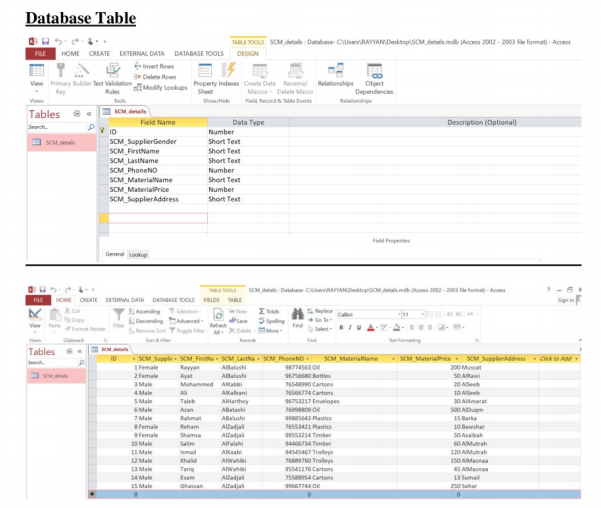
**Note: Marks will be deducted for incorrect references, incorrect time plan etc.**

2) Task 2 **(80 Marks)**

**Answer Keys and Marking Scheme:**

* **2.1. Table creation : 10 marks**
* **2 marks for data dictionary with valid data types**
* **6 marks for table creation with values**
* **2 marks for the explanation**

**Sample database design but will differ from information system to information system**



**Note: Marks will be deducted for incorrect data type, values etc.**

* **2.2. Maintenance form : 35 marks**
* **6 marks for insert (4 marks for inserting a record and 2 marks for explanation of methods involved)**
* **6 marks for update (4 marks for updating a record and 2 marks for explanation of methods involved)**
* **6 marks delete (4 marks for deleting a record and 2 marks for explanation of methods involved)**
* **5 marks for display (4 marks for displaying the records and 1 mark for the explanation of methods involved)**
* **3 marks for clearing the input field**
* **2 marks for panel and 2 marks exit the application**
* **5 marks overall design**

**Note: Marks will be deducted for compilation/build, runtime, logical errors and incorrect GUI.**

* **2.3. Transaction form : 25 marks**
* **15 marks calculate (10 marks for the calculation and 5 marks for records updating in the database)**
* **3 marks for clearing the input fields**
* **3 marks exit button**
* **2 marks panel**
* **2 marks for overall design**

**Note: Marks will be deducted for compilation/build, runtime, logical errors and incorrect GUI**

* **2.4. Crystal Report : 10 marks**
* **5 marks simple crystal report**
* **5 marks for export report.**

**Note: Marks will be deducted for compilation/build, runtime, logical errors and incorrect GUI.**

3) **(10 Marks)**

**Answer Keys and Marking Scheme:**

Cover page (1 mark), table of content (2 marks), referencing (2 marks), Presentation of the code (5 marks)

**Assessment Evaluation Criteria**

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| Classification  And % Range <to be given as per requirement> | Reflection and critical analysis. | Knowledge and Understanding/  Application of Theory | Evidence of Reading | Referencing and Bibliography | Presentation, Grammar and Spelling |
| Outstanding | Highly competent analytical skills and reflective practice, demonstrating personal learning and growth, insight into required professional values and principles and professional development planning. | Extensive knowledge and depth of understanding of principles and concepts and /or outstanding application of theory in practice. | Evidence of reading an extensive range of educational literature/research and where applicable workplace strategies, policies and procedures. | Accurate referencing and bibliography correctly using appropriate referencing style | Excellent presentation, logically structured, using correct grammar and spelling, excellent cross-referencing and links to supporting evidence |
| Excellent | Strong analytical skills and reflective practice used, demonstrating personal learning and growth, insight into required professional values, principles and competencies and professional development planning. | Excellent knowledge and understanding of principles and concepts and /or excellent knowledge and understanding of the application of theory in practice | Evidence of reading a wide range of educational literature/research and where applicable, workplace strategies, policies and procedures. | Appropriate referencing and bibliography correctly using appropriate referencing style | Good presentation, competently structured, using correct grammar and spelling, clear and easy to use links to supporting evidence |
| Very Good Quality | Good use of analytical skills and reflective practice demonstrating personal learning and growth, insight into required professional values, principles and competencies and professional development planning. | Good knowledge or key principles and concepts and/or good knowledge of the application of theory in practice | Evidence of reading a good range of educational literature/research and where applicable workplace strategies, policies and procedures. | Generally well referenced with correct use of the appropriate referencing style | Reasonable presentation, completely structured, acceptable grammar and spelling, acceptable links to supporting evidence |
| Good (Acceptable) | Acceptable use of analytical skills and reflective practice demonstrating personal learning and growth, insight into required professional values, principles and competencies and professional development planning. | Acceptable knowledge of key principles and concepts and/or knowledge of the application of theory in practice | Evidence of reading an appropriate range of educational literature/research and where applicable, relevant workplace policies and procedures | Adequate referencing. Generally accurate use of appropriate referencing style | Adequate presentation and structure, acceptable grammar and spelling, adequate links to supporting evidence |
| Adequate/ Satisfactory | Adequate use of analytical skills and reflective practice demonstrating personal learning and growth, insight into required professional values, principles and competencies and professional development planning. | Adequate knowledge of key principles and concepts and/or satisfactory evidence of the application of theory in practice. | Evidence of minimal reading of educational literature/research and where applicable relevant workplace policies and procedures | Adequate referencing. Appropriate referencing style used but may contain some inaccuracies. | Weak presentation , satisfactory structure, grammar and spelling, links to supporting evidence |
| Weak /Poor  (all learning outcomes not adequately met) | Little use of analytical skills and reflective practice demonstrating personal learning and growth, insight into required competencies and/or professional development planning. Professional values and principles not reflected in the submission.  and/or  Insufficient/no use of analytical skills and reflective practice demonstrating personal learning and growth, insight into required competencies and professional development planning | Little evidence of knowledge of key principles or concepts and/or little evidence of the application of theory in practice  and/or  No evidence of knowledge of key principles or concepts and/or no evidence of application of theory in practice | Little or no evidence of reading outside of the course textbook and/or reference to relevant work place policies and procedures  and/or  No evidence of reading outside of the course textbook and/or reference to relevant workplace policies and procedures | Little or no referencing, incorrect style, or very inaccurate use of appropriate referencing style | Poor presentation, grammar and spelling, links to supporting evidence  and/or  Unacceptable presentation, grammar and spelling, structure is very poor, links to supporting evidence |



**Visual Programming (COMP 1007.1)**

**Fall 2021**

**Case Study with Presentation Evaluation Grid**

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| **Deliverables** | **0-1** | **2-3** | **4-5** | **6-8** | **9-10** | **Marks** |
| Work Proposal | No or Poor Submission | Poor explanation of tasks and timelines given. Few Resources identified. | Average explanation of tasks and timelines given. Few Resources identified. | Good explanation of tasks and timelines given. Few Resources identified. | Proper explanation of tasks and timelines given. Resources identified. |  |
| **Deliverables** | **0-1** | **2-3** | **4-5** | **6-8** | **9-10** | **Marks** |
| Database | Poor implementation or no attempt | Attempted development but have errors on data type, and limited records inserted with poor explanation | Attempted development but have errors on data types and few records inserted with average explanation | Attempted development but few errors on data types and few columns with good explanation | All of the functionality implemented well and explained clearly |  |
| **Deliverables** | **0-2** | **3-5** | **5-8** | **9-13** | **14-15** | **Marks** |
| Maintenance form | Poor implementation or no attempt | Attempted development but have errors on common controls with poor explanation | Attempted development but have errors on common controls, input field code with average explanation | Attempted development but few errors on common controls, input field code with good explanation | All of the functionality implemented well and explained clearly |  |
| **0-5** | **6-10** | **11-16** | **16-18** | **19-20** |  |
| Poor implementation or no attempt | Attempted development but have errors from inserting, deleting and updating a records with poor explanation | Attempted development but have errors from inserting, deleting and updating a records with average explanation | Attempted development but inserting, deleting and updating a records with good explanation | All of the functionality implemented well and explained clearly |  |
| **Deliverables** | **0-1** | **2-3** | **4-5** | **6-8** | **9-10** | **Marks** |
| Transaction form | Poor implementation or no attempt | Attempted development but have errors on common controls with poor explanation | Attempted development but have errors on common controls, input field code with average explanation | Attempted development but few errors on common controls, input field code with good explanation | All of the functionality implemented well and explained clearly |  |
| **0-2** | **3-5** | **5-8** | **9-13** | **14-15** |  |
| Poor implementation or no attempt | Attempted development but have errors from calculations and not updating in the database with poor explanation | Attempted development but have errors from calculations and updating partially in the database with average explanation | Attempted development but few errors from calculations and updating the records in the database with good explanation | All of the functionality implemented well and explained clearly |  |
| **Deliverables** | **0-1** | **2-3** | **4-5** | **6-8** | **9-10** |  |
| Crystal Report | Poor implementation or no attempt | Attempted development but have errors on simple and export report with poor explanation | Attempted development but have errors from simple and export report with average explanation | Attempted development but few errors from simple and export report with good explanation | All of the functionality implemented well and explained clearly |  |
| **Deliverables** | **0-5** | | | **6-8** | **9-10** |  |
| Documentation | Report layout is not well formatted, consist only of the coding while the table of content and referencing and comments and explanation of code are missing | | | Report layout is well formatted with the coding but either the table of content or referencing or comments are missing or explanation are missing | Report layout is well formatted with the coding, the table of content, referencing comments included with detail explanation |  |

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| **Total Marks** |  |
| **Penalty** |  |
| **Final marks** |  |

**Signature of Teacher**