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| Submission Deadline | Marks and Feedback |
| Before 10am on:  12/06/2020 | **20 working days after deadline (L4, 5 and 7) 15 working days after deadline (L6) 10 working days after deadline (block delivery)**  10/08/2020 |





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| Unit title & code | **System Development and Modern Database Practice - CIS020-2** |
| Assignment number and title | **Assignment 2: Student Information Kiosk (SIK) Case Study - Group Assignment** |
| Assessment type | Artefact |
| Weighting of assessment | 70% |
| Unit learning outcomes | On completion of this unit you should be able to:   1. Demonstrate the following knowledge and understanding 2. Critically integrate user requirements into the systematic development of RDBMS data and data-centric systems 3. Demonstrate the following skills and abilities 4. Flexibly explore, select, recommend and apply a set of suitable methodological based developmental approaches for a database system that supports SQL queries |





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| What am I required to do in this assignment? |
| **Work as part of a team to develop an RDBMS / database centric system based on the case study below. Hand-in a final synoptic supportive report detailing the planning, development, implementation, and testing with a suitable, relevant discussion and conclusion about the system produced and include individual contribution of each team member. Also there should be evidence of an integrated systems developmental approach.**  **Deliver a presentation at the end explaining your system and answering questions.**  You will form a group (of maximum 5 students) to plan, develop, implement and presentation an RDBMS / database-centric system incorporating evidence of an integrated systems developmental approach. Marking of this assignment will comprise of:  A. 55% of Assessment 2 for the (ie. web database) system itself and its presentation  B. 45% of Assessment 2 for the documentation of development supporting report (max. 1800 words per student)  An assessed presentation/demonstration will be scheduled and evidence of individual contribution must be included in the report.  Individual Q&A as part of presentation will be used to award individual grades.  Students are expected to spend 40 hours for preparation and 8 hours for the completion of the assessment (including artefact).  **Introduction to the electronic "one-stop" services shop scenario:**  **Notes of Guidance:**  Students will form a small group with whom they will work in a collaborative manner throughout the task (unit). These groups will be formally formed in/by Week 3. Changes to group membership cannot then be subsequently made without client (staff) approval. It is vital that you form a group comprising a mix of suitable skills since the task involves the building of a "Student Information Kiosk". The system will be implemented using Oracle database and may be developed with Oracle APEX or another front end (if agreed upon with the lecturer / ’client’). The task is a demanding one involving the implementation of the overall "Kiosk" scenario.  Note the following is only given as a brief introductory overview and is not to be regarded as a definitive description. Groups should be formed around a normative size of 5 persons.  "KIOSK" SCENARIO - A SHORT SUMMARY  A Student Information Kiosk (SIK) system is to be designed to allow students to access an electronic "one-stop" service shop. The SIK will aim to provide up-to-date information about all events taking place on campus (i.e. student nights, sources of support , clubs, guest lectures, workshops, as well as selected data that seeks to place the student within the context of the local community/services/discounted shopping/special offers/gym/sports activities). An important focus of the system is to enable students (both home and overseas) to gain access to sources of support, learn about Luton as a community. Thus, selected information sources of local services such as: student bank account providers, sports activities, cultural activities etc. should be included and searchable by students. Each student's personal details must be recorded. The system needs to be able to support several "levels" of user. Namely "Admin" user access will have full system privileges, thus enable all data sets to be updated. Each student will have access and be able to change only to their own personal details. Other access types such as "Guest" may also be needed, that do not require individual log-in but provide "generic" information to users, for example a "Kiosk" placed in a space within or near the University campus.  The prototype system will be developed for a desktop workstation but the visual design and usability style must be potentially portable for a range of target platforms (such as a touch screen Kiosk). So whilst your prototype is for a desktop PC you need to bear in mind the eventual target devices and usability contexts of the final solution.  Note an integral part of this task is for you to work collaboratively as a team and to gather requirements from "real" potential users of the system (i.e. students on campus), not simply build a system that matches your own set of requirements. Staff will also act as client and will meet formally with each group on a regular basis during normal practical sessions so as to provide you with additional inputs and a set of more detailed requirements. It is vital that you formally document these and keep a detailed log of all meetings with clients and users. It is important to capture the source of requirements throughout the task. Naturally the set of requirements that each group ultimately converges upon will differ slightly. This is perfectly natural as your ideas develop so will the expectations of your users and clients. Full documentation of this evolutionary process is an essential part of the task. Thus the "journey" is as important as the final production of the system itself.  An Exemplar List of Requirements (for general guidance only, not an exhaustive list)   * User log-in (different access roles are needed such as Admin, individual, "guest" * Browse services by category * Service availability request * Book service/activity * Student registration, logins and validation checks * Booking confirmation * Ability to cancel/update event details/bookings/an individual's personal details * Ability to access system using suitable Web enabled mediators * Community events need to be searchable not merely University events/information sources   **Kiosk A Guide to Your Predicted and Expected: "Work-flow"**  As a group you form a development team. An essential part of developing the system is to carry out and fully documents your activities/models/designs etc. and to refine these in the light of changing or evolving client expectations. Namely, it will be essential for you to broadly speaking engage with and fully document the following:  1. Produce a plan of work  2. Identify users, clients and service "audience"  3. Gather and refine a set of initial user requirements  4. Analyse these using a suitable methodology  5. Produce a list of functional and non-functional requirements  6. Model these using more than one modelling technique and notation  7. Produce an E-R model or set of models, fully normalise and refine your ERM  8. Produce a user interface design and DBMS/Web interface design  9. Implement and fully test the system with "real" users  10. Refine solution iteratively as necessary, providing full justification for all modifications  11. Demonstrate a "user-centric" design paradigm  12. Demonstrate the system to the "client", defend solution through Q & A  This assessment comprises a group development task. You will develop a "Student Information" Kiosk using up-to-date tools and showing evidence of analysis, design, implementation and testing to a high level of specifications, provided by your "client". The task will necessitate you using tools you already know as well as pushing the boundaries of your skills and knowledge.  PLEASE NOTE: Due to the difficult circumstances under which we are all working, it is now possible for students to complete this task as an individual rather than a group. If you are working as a group, you should avoid social contact and use digital means to communicate ie. Microsoft Teams, WhatsApp, Skype etc.  It is essential that all group members are active and reliable throughout the design and development of the system. You must orchestrate the activities of the group so as to leverage the talents of the members of the group. That is, each member of the group will have differing strengths and weaknesses. Assess these and work accordingly. It is expected that each member of the group shows that they are active in all parts of 1 - 12 above, but the relative contributions will of course differ. This is all part of the task. Inactive members of a group will be referred.  You will develop the system iteratively using client input(s). The whole Software Development Lifecycle needs to be fully documented in the formal of written report. The group will also present (i.e. defend) their solution to an audience comprising client and teaching team.  PLEASE NOTE: In the likelihood that students will not be able to present their work in the usual way, it will be necessary for every student to record a video of about 5 to 10 minutes in duration which demonstrates the application and explains their own individual role in its development. This will be uploaded via a BREO link.  A professional approach is expected at all times.  Although this is group work, each student must submit their own report.  Each submitted file MUST be named as:  123456-Assessment2  where 123456 should be replaced with your University ID number.  Upload the file via the appropriate Assignment 2 Upload link available on BREO. You should capture and save evidence of submission. |
| Is there a size limit? |
| The report should have a maximum of 1800 words per student in the group. |
| What do I need to do to pass? (Threshold Expectations from UIF) |
| Identify the system requirements for a given problem and design a solution as part of a team.  Develop a database centric system based on your design as part of a team.  Explain your work, including your individual contribution to the group. |
| How do I produce high quality work that merits a good grade? |
| Produce a significant contribution to work as part of a team to design and deliver a quality piece of software that address the core needs of the case study, presenting your work professionally and showing evidence of planning and critical thinking. |
| How does assignment relate to what we are doing in scheduled sessions? |
| In your sessions you will be learning a variety of system development techniques as well as database design and implementation and front-end implementation with Oracle APEX. All of these will be applied in this assignment. |



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| How will my assignment be marked? |
| Your assignment be marked according to the threshold expectations and the criteria on the following page.  You can use them to evaluate your own work and estimate your grade before you submit. |

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|  | **Lower 2nd – 50-59%** | **Upper 2nd – 60-69%** | **1st Class – 70%+** |
| **1** | Mostly Good implementation that conforms to requirements catalogue with core functionality evidenced | Good implementation that conforms to requirements catalogue with good evidence of target functionality and some testing | Excellence conformance to requirements catalogue with excellent implementation and evidence of testing |
| **2** | Some Innovative ideas present in the design | Good evidence of Innovative ideas present in the design with some explanation of their development | Excellent evidence of Innovative ideas present in the design with clear explanation of their development |
| **3** | Communication skills demonstrated meet nominal industry standards | Communication skills demonstrated exceed nominal industry standards | Exemplary Communication skills demonstrated that exceed nominal industry standards by some margin |
| **4** | A plan of work that contains realistic timescales , evidence of target audience consideration and use of a range of requirement gathering techniques | A good plan of work that contains realistic timescales , with contingency planning and evidence of detailed target audience consideration and use of a range of requirement gathering techniques | An excellent plan of work that contains realistic timescales , with contingency planning and evidence of detailed consideration of a variety of target audiences and excellent use of a range of appropriate requirement gathering techniques |
| **5** | Correct application of a few modeling/design techniques and methods | Good application of a variety of modeling/design techniques and methods | Excellent application of a number of modeling/design techniques inside a tailored methodology suitable for this project |