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| **National Institute of Business Management**  **School of Computing and Engineering**  **Course work | Assessment Announcement Sheet** | | | |  | |
| **Course Name** | HDSE | | | | |
| **Module Name** | Programming Data Structure and Algorithms - I | | | | |
| **Batch** |  | | | | |
| **Learning Outcomes Covered (Mention according to the Module Descriptor)** | Explain the usage of different Data Structures and Algorithms in computer science. | | | | |
| Design and implement different Data Structures and Algorithms | | | | |
| Use Sorting Algorithms for software applications | | | | |
| Identify the shortest path. | | | | |
| Analysis complexity of Algorithms | | | | |
| **Assessment | CW No** | 1 | | | | |
| **Assessment Mode** | **~~Individual~~ | Group** | | **Group (if it is group mode only)** | | |
| **Group Size** | | **Grouping Criteria** |
| **4** | | Gender Balancing |
| **Assessment Type** | **~~Practical Test~~ | Report | Software| Presentation | VIVA | ~~MCQ~~** | | | | |
| **If other specify** |  | | | |
| **Hand in Date | Time** | 2025-08-20 | 4PM | | | | |
| **Hand out Date | Time** | 2025-08-31 | 11PM | | | | |
| **Submission Details (Format and Location)** | LMS Submission – Git Hub Link | | | | |
| **Plagiarism Acceptance Level** | 20% | | | | |
| **Assessment | CW Description** | | | | | |
| **Note:**  This a take home assessment  **Description:**  This assessment is focused on the practical knowledge required to solve the real-world problems related to the concepts learnt through the module. Each group should develop an application or a tool for real-world problem. Students should be able to present their application / tool and explain the work they have done. Questions will be asked by module lecturer during the presentation and evaluation.  **Requirements** **:**   1. Select one of the data structures you learn in the module. 2. Find the applications / tools which can be implemented using the selected Data Structure in a business context. 3. Select one application / tool which is beneficial in your life. 4. **Make a proposal and get the approval for your development.** 5. Understand the functionality of the application / tool. 6. Study the relevant algorithms of functionalities. 7. Propose two **new** functionalities to enhance the features of the application / tool with the algorithms. 8. Develop the application / tool with the proposed new functionalities. 9. Move your application / tool to the git hub and upload the link to the LMS. 10. Present your application / tool.   **Marking Rubric**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Marking Scheme (Value 50% of the module grade)** *Please also see the guidance notes.* | | | | | | |  | **Algorithm design (10%)** | **Technical Implementation (10%)** | **Design and User Experience (10%)** | **Usability of the application / tool (10%)** | **Viva (10%)** | | **0% - 39%** | Limited number of functionalities (1 - 2) | Lack of understanding about technical implementation of the functionalities | Poor design principles and user experience | Poor usability | Poor understanding and knowledge about software / tool, communication skills | | **40% - 49%** | Limited number of functionalities (3-4) | Reasonable knowledge and understanding about technical implementation of the functionalities | Acceptable design principles and user experience | Average usability | Average understanding and knowledge about software / tool, communication skills | | **50% - 59%** | Fair number of functionalities (5-6) | Good knowledge and understanding about technical implementation of the functionalities | Good design principles and user experience | Good usability | Good understanding and knowledge about the software / tool, communication skills | | **70% +** | Number of algorithms 6+ | Very good knowledge and understanding about technical implementation of the functionalities | Excellent design principles and user experience | Excellent usability | Excellent understanding and knowledge about the software / tool , communication skills | | | | | | |