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| **ITY403** | **DATAWARE HOUSING AND BUSSINESS INTELLIGENCE** | **LTPC** | **3 0 0 3** |
| **Prerequisite:** | ITY305 | | |
| **Objective:** The data warehousing part of module aims to give students a good overview of the ideas and techniques which are behind recent development in the data warehousing, Business Intelligence and online analytical processing (OLAP) fields, in terms of data models and storage techniques in Business Intelligence. | | | |
| **Expected Outcome**: Students will be able to Capture the business and technical requirements for BI project lifecycle and Business Intelligence solution architecture. | | | |
| **Unit I** | **Data warehouse building Blocks** | | **No of Hrs : 9** |
| Data warehouse - The building Blocks: Defining Features, data warehouses and data marts, overview of the components, metadata in the data warehouse -Defining the business requirements: Dimensional analysis, information packages - a new concept, requirements gathering methods, requirements. | | | |
| **Unit II** | **Data dimensional modeling** | | **No of Hrs : 9** |
| Principles of dimensional modeling: Objectives, From Requirements- data design, the STAR schema, STAR Schema Keys, Advantages of the STAR Schema | | | |
| **Unit III** | **Data ware house project plan** | | **No of Hrs : 9** |
| Stages of the Project - The Planning Stage - Justifying the Data warehouse - - Overcoming Resistance to the Data warehouse-Developing a Project Plan, Data warehousing Design Approaches - The Architecture Stage - The Data warehouse Data Base - The Analysis Architecture - Data warehouse Hard Ware. | | | |
| **Unit IV** | **OLAP in the Data Warehouse** | | **No of Hrs : 9** |
| OLAP in the Data Warehouse: Demand for Online analytical processing, need for multidimensional analysis, OLAP definitions and rules, OLAP characteristics, major features and functions, general features, dimensional analysis, hypercubes OLAP models, overview of variations, the MOLAP model, the ROLAP model,ROLAP versus MOLAP, OLAP implementation. | | | |
| **Unit V** | **Business Intelligence Architecture** | | **No of Hrs : 9** |
| Introduction to Business Intelligence Architecture - Overview of Business Intelligence Operations-Evaluating Operational Costs and Risks-Business Intelligence Applications like Balanced Scorecard, Fraud Detection, Click stream Mining, Market Segmentation, retail industry, telecommunications industry, banking & finance and CRM etc | | | |
| **Text Books :**  1. Paul Raj Poonia, “Fundamentals of Data Warehousing”, John Wiley & Sons, 2003.  2.Bussiness Intelligence Roadmap, The complete project lifecycle for decision support applications, pearson education , 2003  **References :**  1. Data mining for Bussiness Intelligence concepts,techniques and applications in MS office Excel with xlminer 2nd .ed  2.  Larissa T.Moss,Shaku Atre foreword by Edward Yourdon copy erite 2003, Sam Anahony, “Data Warehousing in the real world: A practical guide for building decision support systems”, John Wiley, 2004. | | | |
| **Mode of Evaluation** | Assignments/Quizzes/Seminars/CAT/Term-end | | |
| **Recommended by the Board of Studies on** | 01/04/2011 | | |
| **Date of Approval by the Academic Council** | 22nd Academic Council held on 08/04/2011 | | |