Designing a Model for Preparing Reports on the Automatic Earned Value Management Progress by the Integration of Primavera P6, SQL Database, and Power BI: A Case Study of a Six-Storey Concrete Building in Mashhad, Iran

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Abstract : Project planners and controllers are frequently faced with the challenge of inadequate software for the preparation of automatic project progress reports based on actual project information updates. They usually make dashboards in Microsoft Excel, which is local and not applicable online. Another shortcoming is that it is not linked to planning software such as Microsoft Project, which lacks the database required for data storage. This study aimed to propose a model for the preparation of reports on automatic online project progress based on actual project information updates by the integration of Primavera P6, SQL database, and Power BI for a construction project. The designed model could be applicable to project planners and controller agents by enabling them to prepare project reports automatically and immediately after updating the project schedule using actual information. To develop the model, the data were entered into P6, and the information was stored on the SQL database. The proposed model could prepare a wide range of reports, such as earned value management, HR reports, and financial, physical, and risk reports automatically on the Power BI application. Furthermore, the reports could be published and shared online.