

## DESIGN, DEVELOPMENT, AND RESEARCH OF SOFTWARE COMPONENTS FOR A BUSINESS INTELLIGENCE SYSTEM IN IT RECRUITING

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The proposed solution utilizes Microsoft Power Platform, integrating Power Apps, Power Automate, and Microsoft Dataverse. The architecture follows a three-layer separation which enhances maintainability and scalability [1].

The system's structure is documented using UML diagrams. The Deployment Diagram (Fig. 1) illustrates the physical deployment of software components onto processing nodes [2].

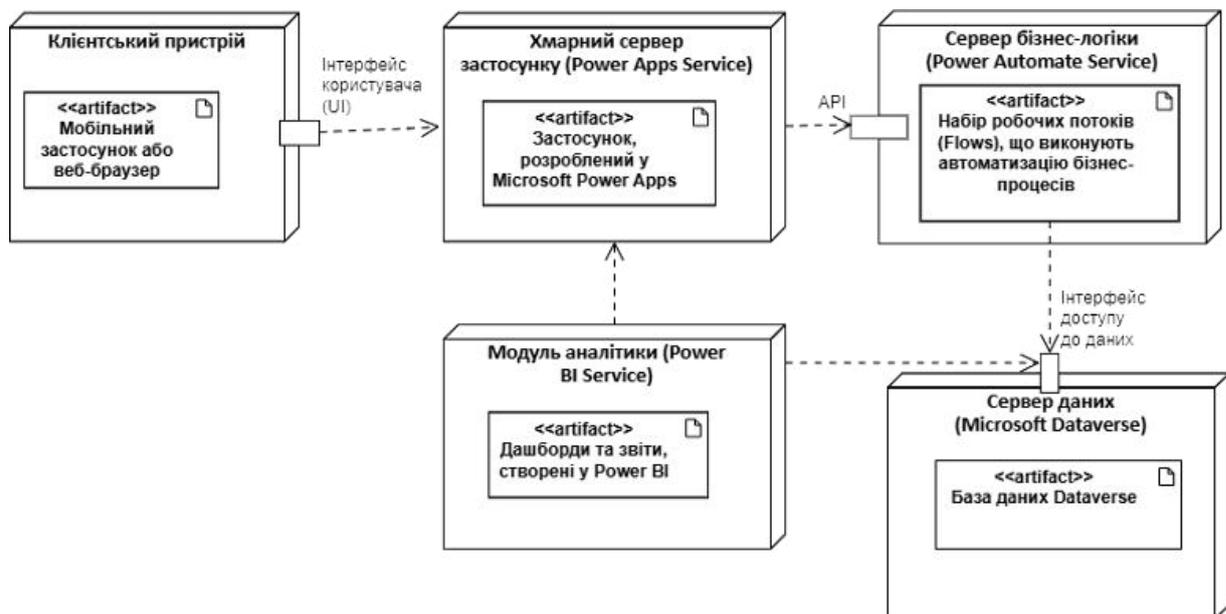


Fig. 1. – UML Deployment Diagram

A BI system was developed using the Microsoft Power BI platform, integrating data from Power Apps and Power Automate components.

A comparative analysis of AS-IS and TO-BE process models was conducted using Bizagi Process Modeler. The automation efficiency was calculated based on the reduction in average total process time and equals  $\approx 93.45\%$ .

The designed and developed software components, leveraging a layered architecture on the Microsoft Power Platform and visualized through Power BI dashboards, demonstrably improve the efficiency of the IT recruiting process. The analysis confirmed a substantial reduction in time required for candidate selection tasks, validating the effectiveness of the proposed BI solution.

### References:

1. Software Architecture Patterns – Layered Architecture *Medium.com* <https://priyalwalpita.medium.com/software-architecture-patterns-layered-architecture-a3b89b71a057>
2. What is Deployment Diagram? *visual-paradigm.com* <https://www.visual-paradigm.com/guide/uml-unified-modeling-language/what-is-deployment-diagram/>