System Integration and Architecture

**Members:**

Jeza Mae Salazar

Ron Albert Sarigumba

John Mhico Tutor

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| System | Before System | After System | Programming Language | Software Used | System Requirements | Programming Language Use | Hardware Requirements | Server Used |
| CRM | Legacy CRM System | Modern CRM System | Java, C#, Python | Salesforce, Microsoft Dynamics 365, HubSpot | Operating System: Windows 10 or later, macOS 10.15 or later | Java, C#, Python | Modern hardware | Salesforce Cloud, Microsoft Dynamics 365 |
| CMS | Legacy CMS System | Modern CMS System | Java, C#, Python | WordPress, Drupal, Joomla | Web server, PHP/Java runtime, compatible database system | Java, C#, Python | Web server (Apache, Nginx), PHP/Java runtime | Apache HTTP Server, Nginx |
| HRIS | Legacy HRIS System | Modern HRIS System | Java, C#, Python | Workday, SAP SuccessFactors, BambooHR | Modern server infrastructure, compatible databases | Java, C#, Python | Modern server infrastructure, compatible databases | Workday, SAP SuccessFactors, BambooHR |
| POS | Legacy POS System | Modern POS System | Java, C#, Python | Square, Lightspeed, Shopify | Specific hardware and software requirements | Java, C#, Python | Specific hardware and software requirements | Square, Lightspeed, Shopify |
| ERP | Legacy ERP System | Modern ERP System | Java, C#, Python | SAP ERP, Oracle E-Business Suite, Microsoft Dynamics 365 | Specific hardware and software requirements | Java, C#, Python | Specific hardware and software requirements | SAP ERP, Oracle E-Business Suite, Microsoft Dynamics 365 |
| E-commerce | Legacy E-commerce System | Modern E-commerce System | Java, C#, Python | Magento, Shopify, WooCommerce | Web server (Apache, Nginx), PHP/Java runtime | Java, C#, Python | Web server (Apache, Nginx), PHP/Java runtime | Apache HTTP Server, Nginx |
| Helpdesk | Legacy Helpdesk System | Modern Helpdesk System | Java, C#, Python | Zendesk, Freshdesk, ServiceNow | Web server (Apache, Nginx), PHP/Java runtime | Java, C#, Python | Web server (Apache, Nginx), PHP/Java runtime | Apache HTTP Server, Nginx |
| Accounting | Legacy Accounting System | Modern Accounting System | Java, C#, Python | QuickBooks, Xero, Sage | Specific hardware and software requirements | Java, C#, Python | Specific hardware and software requirements | QuickBooks, Xero, Sage |
| Project Management | Legacy Project Management System | Modern Project Management System | Java, C#, Python | Jira, Asana, Microsoft Project | Specific hardware and software requirements | Java, C#, Python | Specific hardware and software requirements | Jira, Asana, Microsoft Project |
| Payroll | Legacy Payroll System | Modern Payroll System | Java, C#, Python | ADP, Paychex, Gusto | Modern server infrastructure, compatible databases | Java, C#, Python | Modern server infrastructure, compatible | Cloud Server |
| Inventory | Legacy Inventory System | Modern Inventory System | Java, C#, Python | SAP Inventory Management, Odoo, Zoho Inventory | Specific hardware and software requirements | Java, C#, Python | Specific hardware and software requirements | SAP Inventory Management, Odoo, Zoho Inventory |
| Learning Management System | Legacy LMS System | Modern LMS System | Java, C#, Python | Moodle, Canvas, Blackboard | Web server (Apache, Nginx), PHP/Java runtime | Java, C#, Python | Web server (Apache, Nginx), PHP/Java runtime | Apache HTTP Server, Nginx |
| Messaging | Legacy Messaging System | Modern Messaging System | Java, C#, Python | Slack, Microsoft Teams, Discord | Modern hardware, compatible software | Java, C#, Python | Modern hardware | Slack, Microsoft Teams, Discord |
| Document Management | Legacy Document Management System | Modern Document Management System | Java, C#, Python | SharePoint, Google Drive, Dropbox | Web browser, internet connectivity | Java, C#, Python | Web browser, internet connectivity | SharePoint, Google Drive, Dropbox |
| Time Tracking | Legacy Time Tracking System | Modern Time Tracking System | Java, C#, Python | Toggl, Harvest, Clockify | Web browser, internet connectivity | Java, C#, Python | Web browser, internet connectivity | Toggl, Harvest, Clockify |
| Collaboration | Legacy Collaboration System | Modern Collaboration System | Java, C#, Python | Microsoft Office 365, Google Workspace | Web browser, internet connectivity | Java, C#, Python | Web browser, internet connectivity | Microsoft Office 365, Google Workspace |
| Customer Support | Legacy Customer Support System | Modern Customer Support System | Java, C#, Python | Zendesk, Freshdesk, Salesforce Service Cloud | Web browser, internet connectivity | Java, C#, Python | Web browser, internet connectivity | Zendesk, Freshdesk, Salesforce Service Cloud |
| Bug Tracking | Legacy Bug Tracking System | Modern Bug Tracking System | Java, C#, Python | Jira, Bugzilla, GitHub Issues | Web browser, internet connectivity | Java, C#, Python | Web browser, internet connectivity | Jira, Bugzilla, GitHub Issues |
| Data Analytics | Legacy Data Analytics System | Modern Data Analytics System | Python, R, SQL | Tableau, Power BI, Python libraries (NumPy, Pandas, TensorFlow) | Modern hardware, compatible software, data storage capabilities | Python, R, SQL | Modern hardware | Tableau, Power BI, Python libraries (NumPy, Pandas, TensorFlow) |