**PROJECT DESIGN PHASE-II**

**OPENSOURCE FRAMEWORK**

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| **Date** | **03 NOVEMBER 2023** |
| **Team ID** | **NM2023TMID04681** |
| **Project name** | **BUILD AN EVENT MANAGEMENT SYSTEM** |

Adding opensource frameworks directly to Salesforce, which is a platform primarily for declarative and custom development, is not a common practice due to the constraints of the platform. However, you can integrate opensource technologies and frameworks externally to complement your Salesforce-based Event Management System. Here are some ways to achieve this:

**Web Integration:** Build a custom web application that interacts with your Salesforce system. You can use opensource web frameworks like Django, Ruby on Rails, or Express.js to create the frontend and backend of the application. This external application can provide additional features and user interfaces that connect to Salesforce via APIs.

**Frontend Frameworks:** Use popular frontend frameworks like React, Angular, or Vue.js to develop a user-friendly interface for your Event Management System. These frameworks can communicate with Salesforce using the Salesforce REST or SOAP APIs.

**Database Integration:** If you need a separate database for your event data or you want to store data in a more flexible manner, you can use opensource databases like PostgreSQL, MySQL, or MongoDB. You can integrate these databases with Salesforce using APIs or middleware solutions.

**Event Synchronization:** Utilize opensource integration tools like MuleSoft, Apache Camel, or Zapier to synchronize data between Salesforce and external systems. This can help keep data consistent and up-to-date.

**Authentication and Single Sign-On (SSO):** Implement opensource identity and access management solutions like Keycloak, Auth0, or Okta for user authentication and single sign-on integration with your Salesforce-based system.

**Custom Application Components:** Develop custom components or microservices using opensource technologies to extend the functionality of your Event Management System. These components can be hosted externally and interact with Salesforce via APIs.

**CI/CD and DevOps Tools:** Use opensource Continuous Integration/Continuous Deployment (CI/CD) and DevOps tools like Jenkins, GitLab CI/CD, or CircleCI to automate the deployment and maintenance of your system, ensuring reliable updates and scalability.

**Analytics and Reporting:** Integrate opensource reporting and analytics tools such as Apache Superset or Metabase to generate custom reports and insights based on the data stored in Salesforce.

**Mobile App Development:** Develop a custom mobile app using opensource mobile app frameworks like React Native or Flutter to provide a mobile experience for attendees and event organizers. This app can interact with Salesforce through APIs.

**Content Management:** Utilize opensource content management systems (CMS) like WordPress, Drupal, or Joomla for managing event-related content, such as event websites and blogs, and integrate them with your Salesforce system.

When integrating opensource frameworks with Salesforce, ensure that you follow best practices for security, data synchronization, and API usage. Keep in mind that any external systems and data storage solutions should comply with privacy regulations, especially if they involve personally identifiable information (PII) and sensitive data. Additionally, thoroughly test and validate the integrations to ensure seamless operation within your Event Management System.