

Project Design Phase-II Technology Stack (Architecture & Stack)

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| Date | 03 October 2022 |
| Team ID | PNT2022TMID00975 |
| Project Name | IoT Based Safety Gadget for Child Safety Monitoring and Tracking |
| Maximum Marks | 4 Marks |

Technical Architecture:

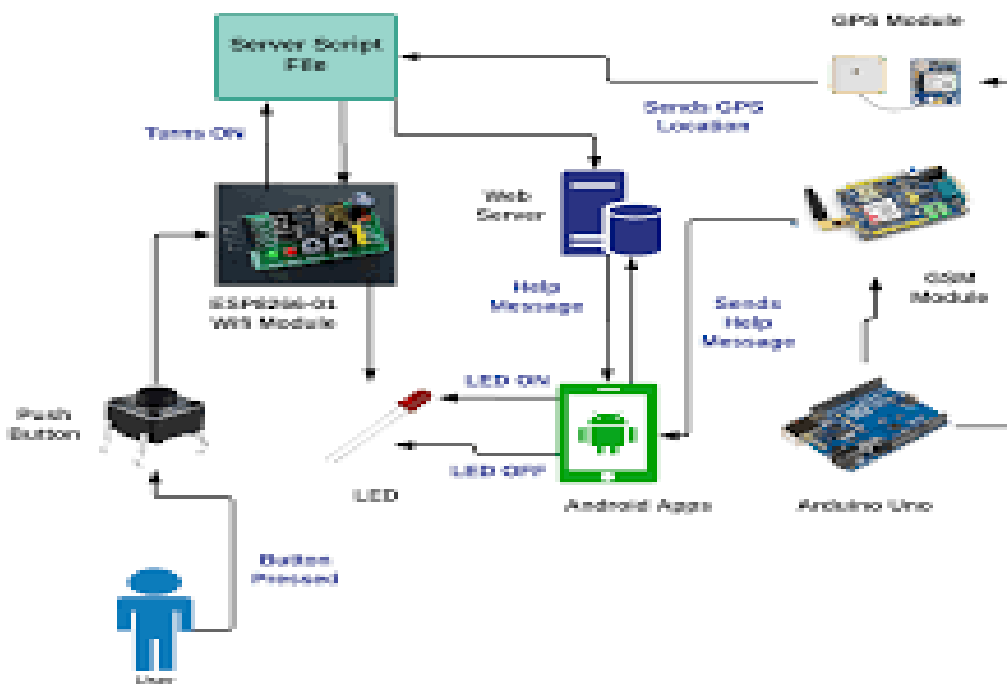


Table 1- Components and Technologies:

| S.no | Components | Description | Technology |
|-------------|---------------------------------|--|------------------------|
| 1 | User Interface | Mobile Application | HTML, CSS, JavaScript |
| 2 | Application Logic-1 | Logic for a process in the application | Java |
| 3 | Application Logic-2 | Logic for a process in the application | IBM Watson STT service |
| 4 | Application Logic-3 | Logic for a process in the application | IBM Watson Assistant |
| 5 | Database | Data Type, Configurations. | MySQL |
| 6 | Cloud Database | Database Service on Cloud | IBM Cloudant |
| 7 | File Storage | File storage requirements | IBM Block Storage |
| 8 | External API | Purpose of External API used in the application | Aadhar API, etc |
| 9 | Infrastructure (Server / Cloud) | Application Deployment on Local System / Cloud Local Server Configuration | Cloud Foundry |

Table 2- Application Characteristics:

| S.No | Components | Description | Technology |
|-------------|--------------------------|--|---|
| 1 | Open-Source Frameworks | Open stack, Github. | Internet hosting service for software development and version control using Git |
| 2 | Security Implementations | Web Application Firewall(WAF) | AWS WAF, Cloudflare WAF |
| 3 | Scalable Architecture | By building articles and authors into a single query, the volume of queries can be reduced | IBM SQL. |
| 4 | Availability | The load balancer intelligently routes client requests to the right server, in a manner that maximizes performance and capacity utilization. | Web server, Load balancer |
| 5 | Performance | Caching, Asynchronous conditions. | Cache memory, Content Delivery Network. |