Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 18 October 2022 |
|---------------|----------------------------------------------|
| Team ID | PNT2022TMID10801 |
| Project Name | Estimate the Crop Yield using Data Analytics |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|-------------------------------------------------------|
| FR-1 | User Registration | Registration through Form |
| | | Registration through Gmail |
| | | Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email |
| | | Confirmation via OTP |
| FR-3 | Account Creation | Create an account in the dashboard |
| FR-4 | Processing Methods | Using IBM Cognos Analytics Dashboard using Prediction |
| | | algorithm to find them |
| F5-5 | Project Upload | Uploading the project according to the problem |
| | | statement provided |

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NFR-1 | Usability | One of the top nations for grain production is India. In accordance with the project, we will analyse some significant visualisations and build a dashboard. The benefit of this dashboard is that all the necessary data will be presented in a single, intuitive presentation. There is no need for additional dashboards individually. |
| NFR-2 | Security | Only the system administrator has the ability to change the access permission for a certain system's information. A high level of security must be maintained by the user. Before attempting to log into their account on a new device, for instance, any user's registered email address or mobile number will receive a verification code. |
| NFR-3 | Reliability | Farmers now have access to information that can help them forecast the state of the market for finished commodities and other relevant factors. |
| NFR-4 | Performance | With massive data sets, data analytics makes it possible to run current algorithms more quickly. Data processing, which includes the processing of raw data collections, is one of the key elements. |

| NFR-5 | Availability | With the help of data analytics, agricultural |
|-------|--------------|-------------------------------------------------|
| | | production may be predicted sooner, even before |
| | | seeds are sown, increasing productivity. |
| NFR-6 | Scalability | It can accommodate many people logging in |
| | | simultaneously. When farmers and customers are |
| | | utilised to analyse the crop, the dashboard is |
| | | scalable. |