

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**  
**Intelligent Garbage Classification Using Deep Learning**

Date	13 May 2023
Team ID	NM2023TMID07370
Project Name	Intelligent Garbage Classification Using Deep Learning
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	High Humidity	Moisture is crucial for mushroom growth both in the substrate and the surrounding environment
FR-2	Ideal Temperatures	Ideal temperatures for colonization vary by species, and some mushrooms tolerate a broader range of temperatures than others
FR-3	Fresh Air Exchange	During colonization, mushroom mycelium tolerate higher levels of CO <sub>2</sub> as it's often underground, but it still needs enough fresh air exchange to breathe.
FR-4	Good Air Circulation	As the mycelium grows and feeds on the substrate, it produces heat that increases the temperature inside the substrate.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Mushrooms contain more protein than fruits & vegetable and, Mushrooms can also be low in cholesterol.
NFR-2	<b>Security</b>	This should be maintain with a natural resources
NFR-3	<b>Reliability</b>	The aim of this study was to develop a systematic quality index for application in the cultivation
NFR-4	<b>Performance</b>	These industry perform the available and how it should be grown
NFR-5	<b>Availability</b>	Mushroom are available in forest region to cultivate in the cooled temperature.
NFR-6	<b>Scalability</b>	Mushrooms are grown seasonally and in environment controlled cropping houses. White button mushroom requires 20-28°C for vegetative growth and 12-18°C for reproductive growth.