PROJECT DESIGN PHASE-II

SOLUTION REQUIREMENTS(FUNCTIONAL&NON FUNCTIONAL)

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| DATE | 24 MAY 2023 |
| TEAM ID | NM2023TMID17750 |
| PROJECT NAME | DEEP LEARNING MODEL FOR DETECTING DISEASES IN TEA LEAVES |

FUNCTIONAL REQUIREMENTS:

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| FR NO | FUNCTIONAL REQUIREMENT | SUB REQUIREMENT |
| FR-1 | IMAGE ACQUISITION | DATASET COLLECTION MANAGEMENT |
| FR-2 | PREPROCESSING | MODEL DEVELOPMENT AND TRAINING |
| FR-3 | DISEASE DETECTION | FEATURE EXTRACTION AND REPRESENTATION |
| FR-4 | CLASSIFICATION AND LOCALIZATION | DISEASE DETECTION ALGORITHM |

NON FUNCTIONAL REQUIREMENTS:

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| FR NO | NON FUNCTIONAL REQUIREMENT | DESCRIPTION |
| NFR-1 | USABILITY | THE MODEL SHOULD BE USABLE IN ITS EFFIECTIVENESS AND ADOPTION |
| NFR-2 | SECURITY | THE MODEL SHOULD ADHERE TO DATA PRIVACY REGULATIONS AND ENSURE THE SECURITY OF USER DATA |
| NFR-3 | RELIABILLITY | THE MODEL SHOULD RELIABILE IN DETECTING TEA LEAF DISEASES |
| NFR-4 | PERFORMANCE | THE MODEL SHOULD EXHIBIT HIGH PERFORMANCE CHARACTERISTICS INCLUDING FAST INFERENCE TIMES AND EFFICIENT RESOURCE UTILIZATION |
| NFR-5 | AVAILABILITY | THE MODEL SHOULD AVAILABLE FOR THE UNSEEN TEA LEAF AND VARAITION OF TEA LEAF |
| NFR-6 | SCALABILITY | THE MODEL SHOULD BE SCALABLE CPABLE OF HANDLING VARYING VOLUMES OF TEA LEAF IMAGE |