**Project Design Phase**

**Problem – Solution Fit Template**

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| Date | 30 June 2025 |
| Team ID | LTVIP2025TMID37158 |
| Project Name | Transfer Learning-Based Classification of  Poultry Diseases for Enhanced Health  Management |
| Maximum Marks | 2 Marks |

**Problem**

Poultry farmers often struggle to diagnose bird diseases like Salmonella, Coccidiosis, or Newcastle Disease early. This leads to high mortality, economic loss, and delayed treatment—especially in rural areas with limited vet access.

1. **Target Group / Customers:**

 Rural poultry farmers

 Commercial poultry farm operators  Veterinary students and institutions

1. **Existing Alternatives:**

 Manual inspection by local vet (if available)

 Self-diagnosis using books or internet

 Government animal health workers

1. **Problems With Existing Alternatives:**

 Lack of real-time diagnosis

 Inaccuracy or misdiagnosis

 Limited accessibility

 Delay in action → disease spreads

1. **Solution:**

A mobile app powered by a **transfer learning-based model** to classify diseases from symptoms/environment data into:

→ **Salmonella, Newcastle Disease, Coccidiosis, or Healthy** Gives diagnosis + treatment suggestions instantly.

**Purpose:**

1. Early Detection: Prevent disease outbreaks and reduce bird mortality
2. Empower Farmers: Provide self-help diagnosis tool
3. Quick Action: Enable immediate treatment without waiting for a vet
4. Educational Tool: Train students in AI-based diagnosis

**Problem and Solutions:**

