

Project Design Phase
Problem – Solution Fit Template

Date	15 February 2025
Team ID	LTVIP2025TMID34941
Project Name	<ul style="list-style-type: none"> • Poultry Disease Recognition Using Deep Learning •
Maximum Marks	2 Marks

Problem – Solution Fit Template:

Problem – Solution Fit Canvas

Section	Details
Target Group / Customer	Poultry farmers, veterinary health workers, small poultry enterprises, rural poultry cooperatives.
Problem Faced	Lack of access to early and accurate disease detection tools in poultry leads to the spread of infections, high mortality, and economic loss. Farmers depend on experience or expensive vet consultations, which are not always feasible.
Trigger Events / User Behavior	Sudden death of birds, abnormal behavior, change in droppings or feeding habits prompt farmers to seek help via phone, WhatsApp, or local veterinary officers. Often, action is delayed until multiple birds are affected.
Existing Alternatives / Workarounds	<ul style="list-style-type: none"> - Manual vet inspections - Self-diagnosis using symptoms - Searching online - Advice from fellow farmers or local suppliers - Delayed medical treatment
Shortcomings of Alternatives	<ul style="list-style-type: none"> - Not real-time - Expensive or unavailable vet access - No accuracy in symptom-based judgment - Not scalable or technology-aided

Proposed Solution	A user-friendly AI web app that takes images of chickens (symptoms or affected areas) as input and identifies the disease and its severity stage using transfer learning and deep learning models.
Why It Works	<ul style="list-style-type: none"> - Available anytime through phone or PC - Low-cost and accessible - Provides faster diagnosis than traditional methods - Can prevent outbreaks and reduce financial losses - Local language options improve usability
Behavior Fit / Adoption	Farmers are increasingly tech-savvy, use smartphones, and rely on WhatsApp or YouTube for agricultural help. This solution fits their digital behavior and offers immediate value.
Unique Value Proposition (UVP)	<ul style="list-style-type: none"> - Instant, image-based poultry disease recognition - Works offline or in low-internet environments (optional model) - Multilingual support - Early-stage detection and treatment guidance
Adoption Channels	<ul style="list-style-type: none"> - Farmer training programs - Agricultural extension departments - NGO-led animal health campaigns - Vet clinics and medicine distributors - YouTube, mobile app stores, and WhatsApp communities