## Project Design Phase-I

## Proposed Solution

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| Date | 23 September 2022 |
| Team ID | PNT2022TMID21789 |
| Project Name | Intelligent Vehicle Damage Assessment and Cost Estimation For Insurance Company |
| Maximum Marks | 2 Marks |

| S. No | Parameter | Description |
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| 1. | Problem-Statement (Problem to be solved) | • Manual approval processes are often time-consuming and require a significant number of staff to be trained to handle a variety of claims.<br>• Car insurance settlement claims require near-perfect accuracy to avoid deceiving the customer in the process. Such models have to be trained on huge data sets that are very difficult to obtain.<br>• 5-10% of insurance claims are considered fraudulent, costing US insurers more than USD 40 billion every year |
| 2. | Idea / Solution description | • The aim of this project is to build a VGG16 model that can detect the area of damage on a car.<br>• The rationale for such a model is that it can be used by insurance companies for faster processing of claims if users can upload pics and the model can assess damage( be it dent scratch from and estimates the cost of damage.<br>• This model can also be used by lenders if they are |

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| | | underwriting a car loan, especially for a used car. |
| 3. | Novelty / Uniqueness | • AI is the science and engineering of making intelligent machines, especially intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI does not have to confine itself to methods that are biologically observable."<br>• The model can demonstrate the condition of the car's body without requiring travel or expert intervention and activate the policy instantly".<br>• A very high level of accuracy. |
| 4. | Social Impact / Customer Satisfaction | • The conventional method of assessment of vehicle damage is time consuming, the impatience of the costumer can lead to non-subscription. AI will make things instantly which the problem is resolved.<br>• Insurance company shortened not only the time taken to assess damages, but also the overall end-to-end steps for the customers to process a claim, estimate cost, and get their payment. As a result, company productivity and customer satisfaction skyrocketed. |
| 5. | Business Model (Revenue Model) | • AI-based and image recognition systems in clouds, providing customers with Software as a Service and enabling your business to rapidly evolve and grow.<br>• It allows you to save costs by running services from time to time (like when you need to retrain your models on a new dataset or run recognition service on-demand only) unlike your own servers, you have to pay for electricity and support all the time. |

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| 6. | Scalability of the solution | • Our proposed solution is also compatible and can integrate with the company's existing applications.<br>• We have developed an app to display the functionalities and connectivity of the model.<br>• The solution is fully cloud-hosted, yielding scalability and on-demand service, without any requirement of the internal infrastructure or maintenance cost.<br>• The solution is easy to integrate into another ecosystem due to the app's modular structure. |