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## Model Development Phase

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| Date | 22 June 2025 |
| Team ID | SWTID1749918275 |
| Project Title | Bulls Eye Target Detection using Transfer Learning |
| Maximum Marks | 5 Marks |

### Feature Selection Report

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| image\_id | Unique identifier or filename for each image | No | Not needed for model training; it does not contribute to visual pattern recognition. |
| image\_data | Pixel data (image itself) | Yes | Core input feature for classification based on visual content. |
| label | Indicates whether the image contains a bull’s eye or not | Yes | Required as the target label for supervised learning. |
| image\_resolution | Dimension of image, e.g., 224×224 | Yes | Images are resized uniformly for model input; consistency ensures model performance. |
| color\_channels | Number of color channels (typically 3 for RGB) | Yes | RGB channels are necessary for pre-trained CNNs like MobileNetV2. |
| background\_type | Type of background in the image (blank, cluttered, synthetic) | No | Not explicitly used; model indirectly learns features, but this info is not manually labeled. |
| is\_augmented | Whether the image is original or augmented (rotation, flip, zoom, etc.) | No | Not used in this project as augmentation was not applied. |
| bullseye\_size | Size of the bullseye in the image (if applicable) | No | Not provided in the dataset and not used in training. |
| circle\_count | Number of concentric circles in the target (if bullseye exists) | No | Not available as a feature; only used in post-processing, not during training. |