**Model Optimization and Tuning Phase Template**

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| Date | 03 July 2024 |
| Team ID | SWTID1720085445 |
| Project Name | Hydration Essentials: Classifying Water Bottle Images |
| Maximum Marks | 10 Marks |

**Model Optimization and Tuning Phase**

The Model Optimization and Tuning Phase involves refining neural network models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

### Hyperparameter Tuning Documentation (8 Marks):

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| **Model** | **Tuned Hyperparameters** |
| Sequential |  |
| Random Search |  |

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### Final Model Selection Justification (2 Marks):

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| **Final Model** | **Reasoning** |
| Sequential | represents a linear stack of layers. It is a straightforward way to create neural networks where each layer has exactly one input tensor and one output tensor. |