Model Development Phase Template

Date	15 April 2024
Team ID	Team-738165
Project Title	Neural Networks Ahoy: Cutting-Edge Ship Classification for Maritime Mastery
Maximum Marks	5 Marks

Model Selection Report

VGG16 is a solid choice as a starting point for your ship classification task. Its pre-trained weights and adaptable architecture make it a good baseline for achieving good classification accuracy. However, keep in mind potential drawbacks like computational cost and the existence of potentially more efficient alternatives.

Model Selection Report:

Model	Description
VGG16	**Why VGG16?** **Strong Baseline:** VGG16 is a well-established CNN architecture known for its good performance on various image classification tasks. **Transfer Learning:** You'll be using pre-trained weights, leveraging the model's ability to recognize lower-level features like edges and textures, which are generally applicable to many image classification problems. This reduces training time and can improve performance compared to training from scratch. **Adaptability:** Fine-tuning the final layers allows VGG16 to learn the specific features that distinguish your five ship categories.

	Considerations: **Computational Cost**: VGG16 can be computationally expensive to train, especially if your dataset is large. Consider resource limitations if applicable. **Alternatives:** Explore more recent CNN architectures like Reset or Efficient Net if computational efficiency or potentially even better performance is crucial.