

# Feature Selection Report

Team ID: SWTID1720067156

July 10, 2024

## Model Development Phase

**Team ID:** SWTID1720067156

**Project Title:** Lymphography Classification Tool

**Maximum Marks:** 5 Marks

## Feature Selection Report

In this report, each feature will be accompanied by a brief description. We will indicate whether it is selected or not, providing reasoning for our decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
class	Class of the lymphography result (normal find, metastases, malign lymph, fibrosis)	Yes	The target variable for predictive modeling - essential for the project's goal.
lymphatics	Status of lymphatics (normal, arched, deformed, displaced)	Yes	Relevant for understanding lymphatic abnormalities.
block of affere	Block of afferent lymphatic (no, yes)	Yes	Indicates potential blockages in lymphatic flow.
bl. of lymph. c	Block of lymphatic collector (no, yes)	Yes	Crucial for identifying lymphatic collector blockages.
bl. of lymph. s	Block of lymphatic sinuses (no, yes)	Yes	Important for assessing blockages in lymphatic sinuses.
by pass	Bypass of lymph nodes (no, yes)	Yes	Determines if there are bypasses affecting lymph flow.
extravasates	Extravasates present (no, yes)	Yes	Indicates the presence of extravasates, which is important for diagnosis.
regeneration of	Regeneration of lymphatic tissue (no, yes)	Yes	Shows tissue regeneration status, relevant for medical assessment.
early uptake in	Early uptake in lymph nodes (no, yes)	Yes	Indicates early uptake which is crucial for early diagnosis.
lym.nodes dimin	Lymph nodes diminishment (0-3)	Yes	Important for measuring the extent of lymph node diminishment.

lym.nodes enlar	Lymph nodes enlargement (1-4)	Yes	Indicates the level of lymph node enlargement, relevant for diagnosis.
changes in lym.	Changes in lymph nodes (bean, oval, round)	Yes	Describes morphological changes in lymph nodes.
defect in node	Defect in lymph node (no, lacunar, lac. marginal, lac. central)	Yes	Identifies types of defects in lymph nodes.
changes in node	Changes in node (no, lacunar, lac. margin, lac. central)	Yes	Shows specific changes within the lymph node structure.
changes in stru	Structural changes (no, grainy, drop-like, coarse, diluted, reticular, stripped, faint)	Yes	Describes structural changes in lymphatic tissue.
special forms	Special forms present (no, chalices, vesicles)	Yes	Indicates special forms which are significant for diagnosis.
dislocation of	Dislocation of lymph nodes (no, yes)	Yes	Determines if there is any dislocation of lymph nodes.
exclusion of no	Exclusion of nodes (no, yes)	Yes	Indicates if certain nodes are excluded from the normal flow.
no. of nodes in	Number of nodes involved (0-9, 10-19, 20-29, 30-39, 40-49, 50-59, 60-69, $\geq 70$ )	Yes	Quantifies the number of nodes involved, essential for diagnosis.