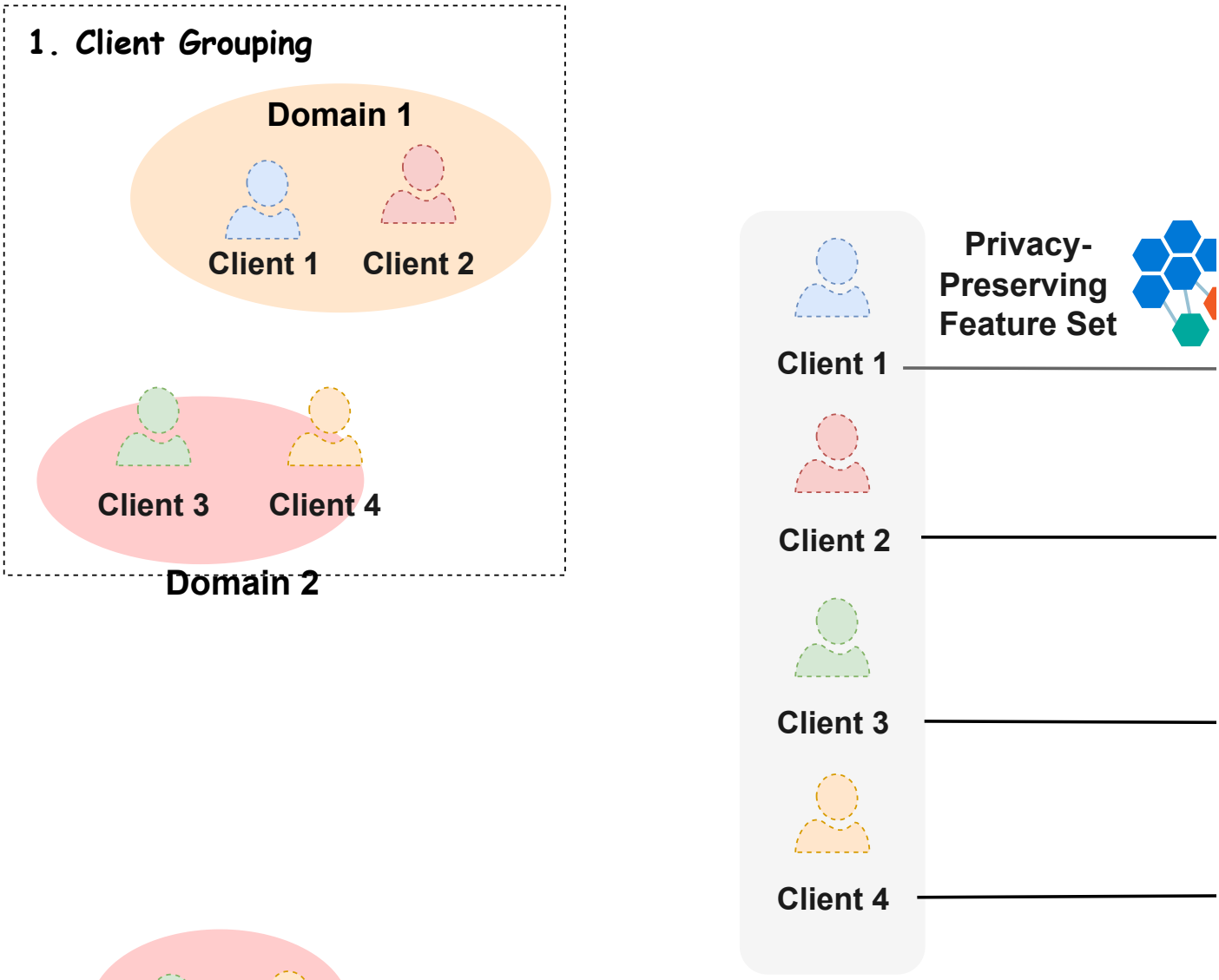
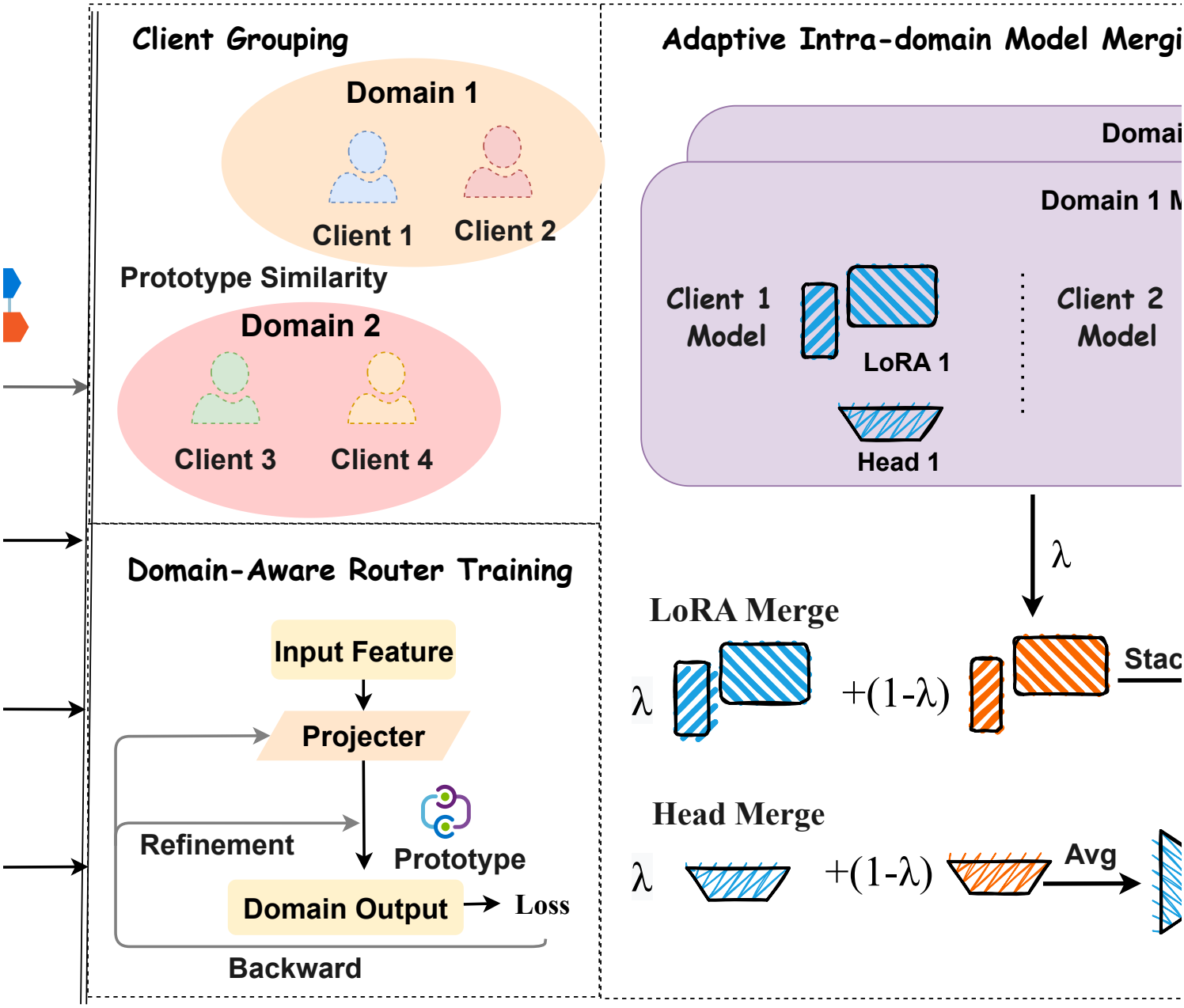
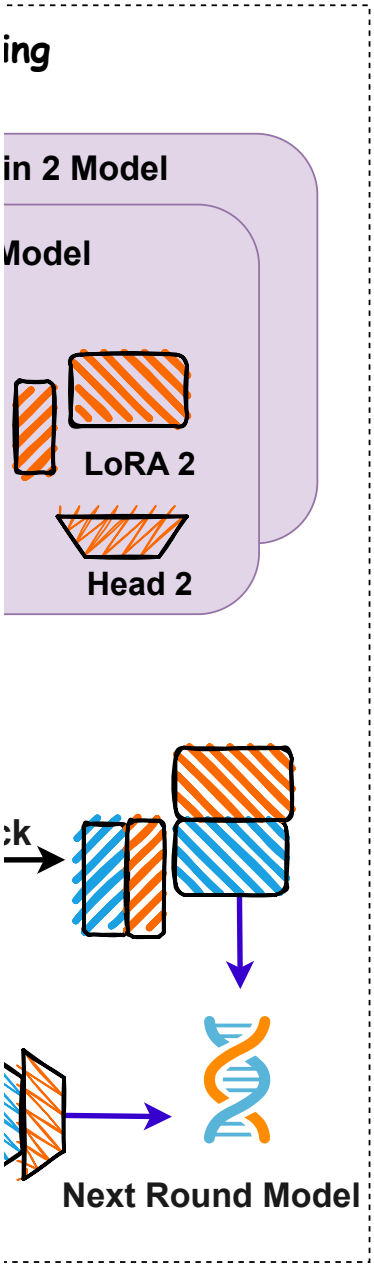
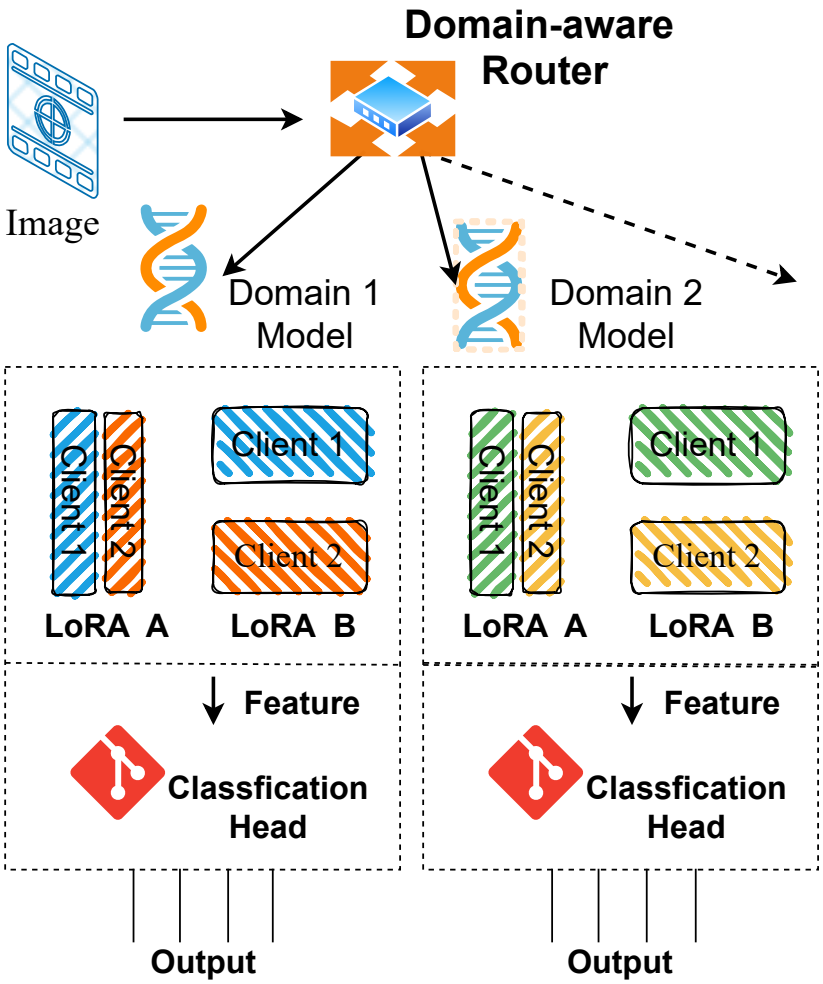

1. Client Grouping
Domain 1
Client 1
Client 2
Client 3
Client 4
Domain 2
Client 1
Client 2
Client 3
Client 4
Privacy-
Preserving
Feature Set


Client Grouping
Domain 1
Client 1
Client 2
Prototype Similarity
Domain 2
Client 3
Client 4
Domain-Aware Router Training
Input Feature
Projecter
Refinement
Prototype
Domain Output
Loss
Backward
Adaptive Intra-domain Model Mergi
Domai
Domain 1 M
Client 1 Model
LoRA 1
Head 1
Client 2 Model
λ
LoRA Merge
λ
+(1-λ)
Stac
Head Merge
λ
+(1-λ)
Avg


ing
in 2 Model
Model
LoRA 2
Head 2
ck
Next Round Model


Domain-aware
Router
Image
Domain 1
Model
Domain 2
Model
Client 1
Client 2
Client 1
Client 2
LoRA A
LoRA B
Client 1
Client 2
Client 1
Client 2
LoRA A
LoRA B
Feature
Classfication
Head
Feature
Classfication
Head
Output
Output