Boosting

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Basic Ensemble Techniques

- Voting
- Averaging
- Weighted Averaging
- Rank Averaging

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Advanced Ensemble Techniques

- Stacking
- Blending
- Bagging (Random Forest)

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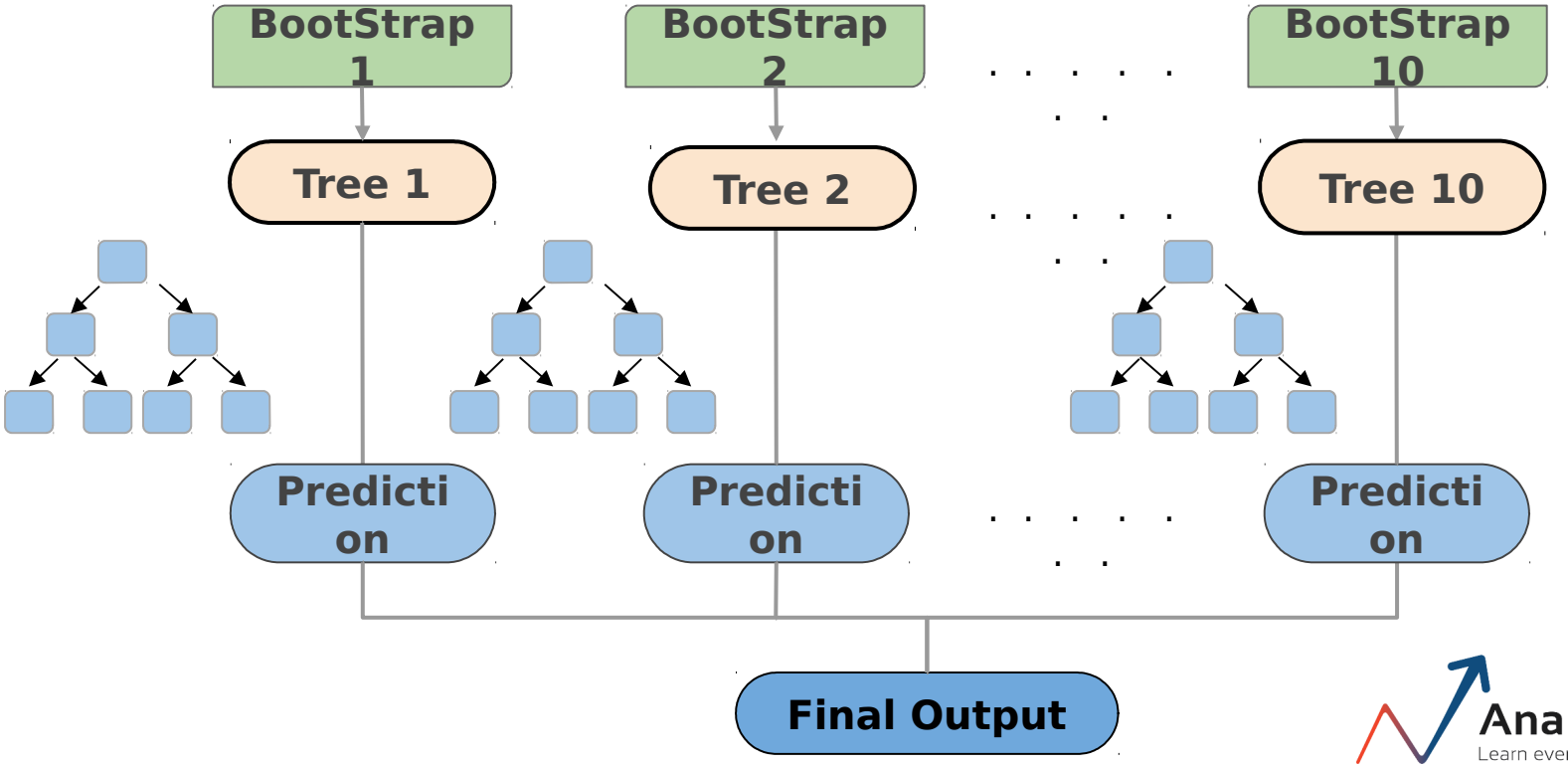
Random Forest: Recap



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Random Forest: Recap

- Uses Bagging Technique
- Combining Multiple Trees
- Each Tree build on a Different subset of data
- Reduces overfitting

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Random Forest: Recap

- Independent Trees

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Random Forest: Recap

- Independent Trees
- Does not take into account the incorrect predictions

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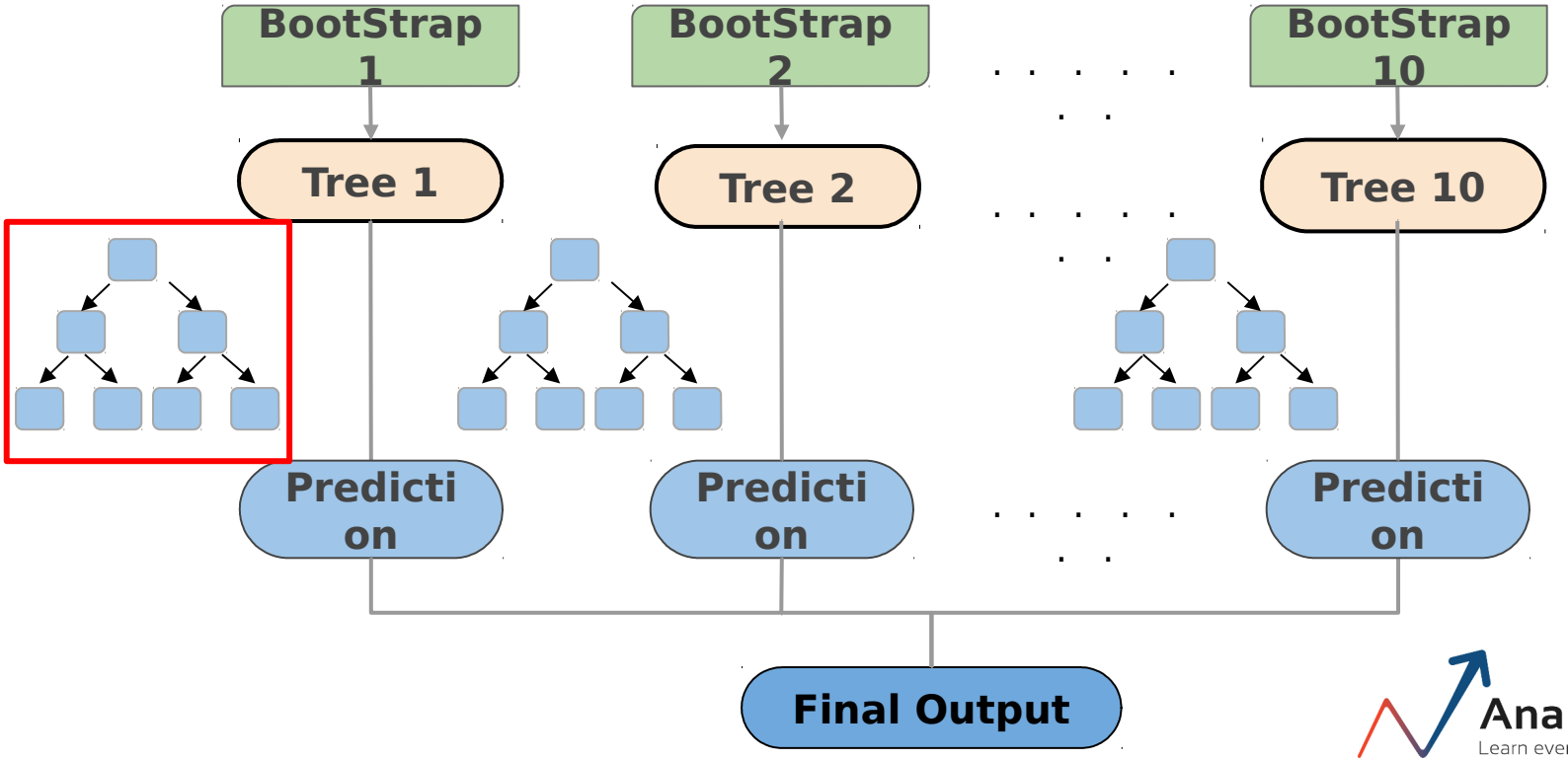
Random Forest: Recap



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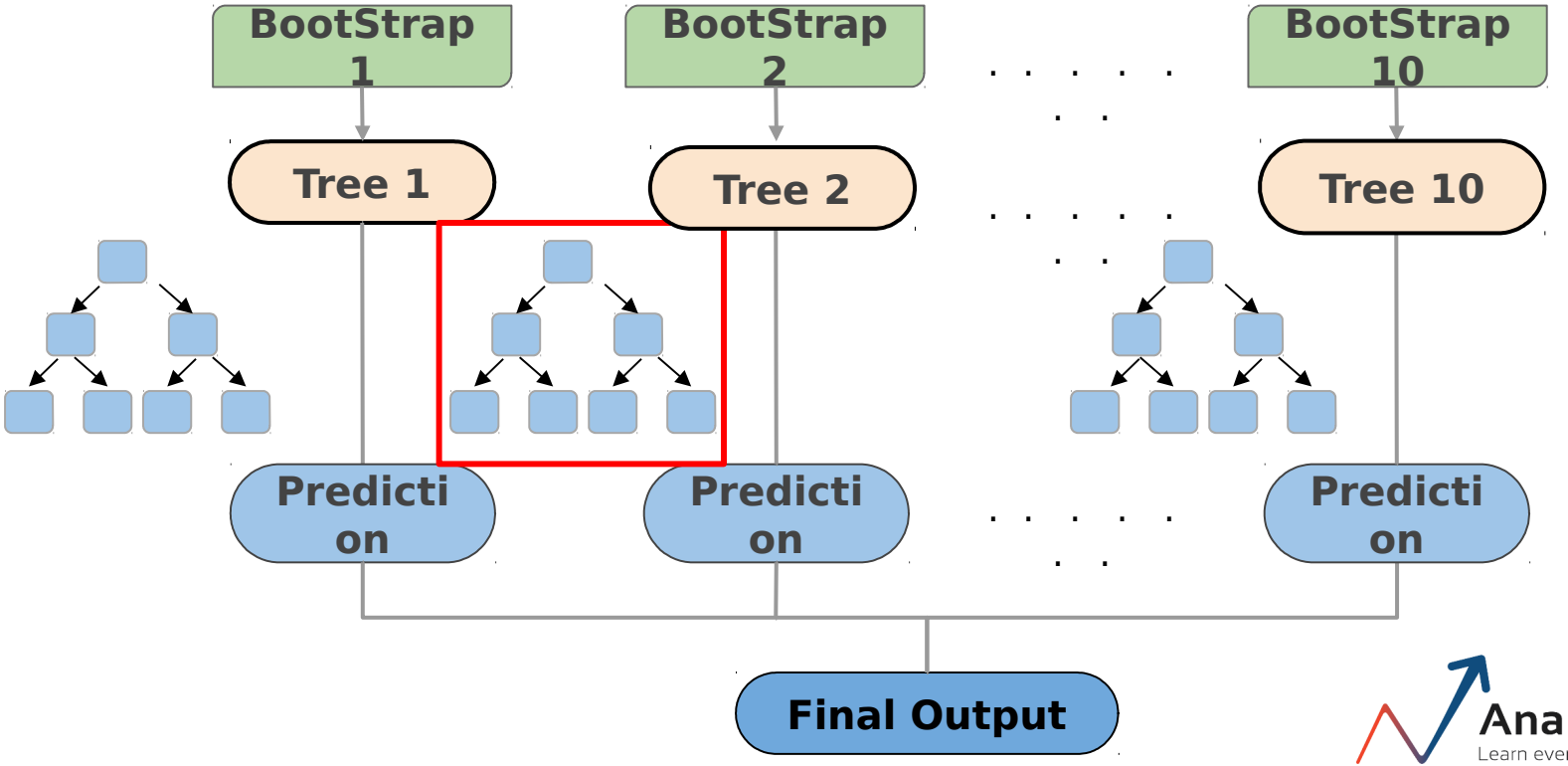
Random Forest: Recap



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Random Forest: Recap

- Independent Trees
- Does not take into account the incorrect predictions

- New trees do not learn from the previous models

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Boosting

- Models are dependent

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Boosting

- Models are dependent
- Correct the errors of previous Models

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Boosting

- Models are dependent
- Correct the errors of previous Models
- Build Sequentially

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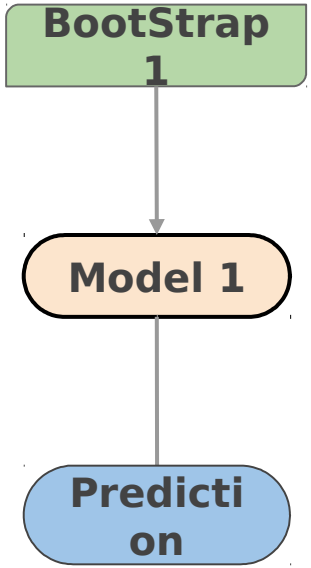
Boosting



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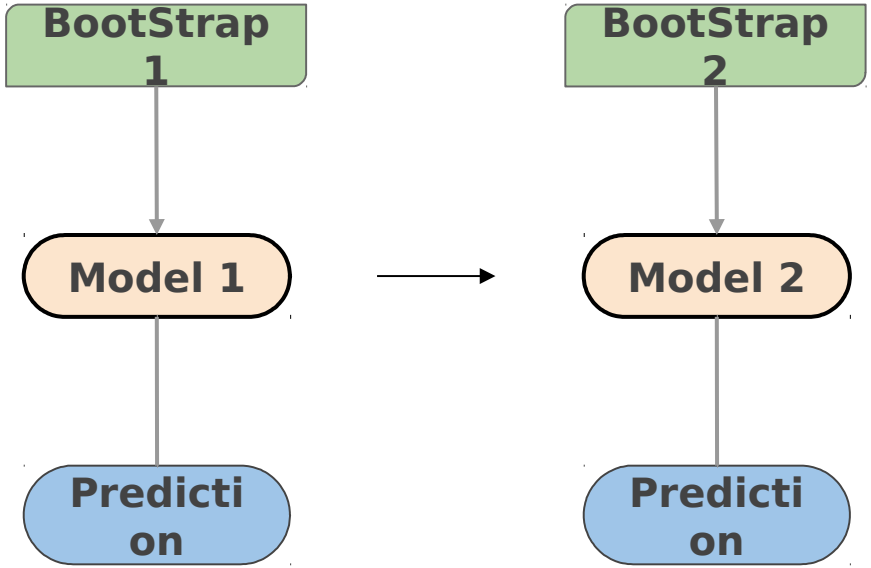

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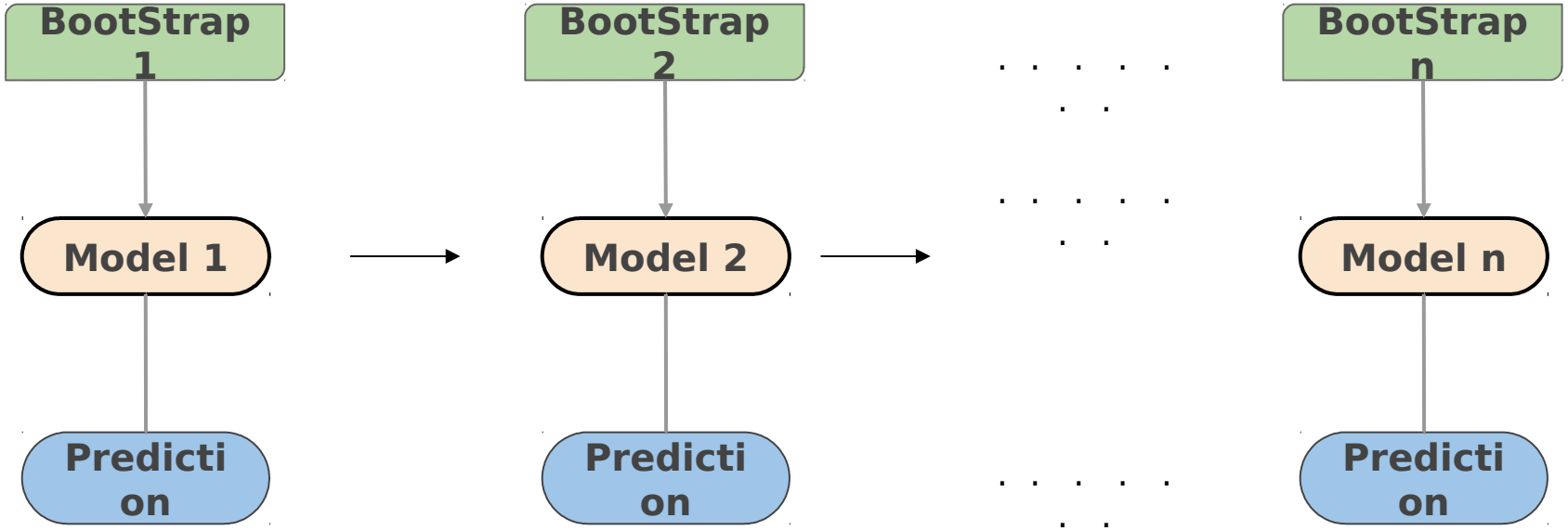

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Stopping Criteria for Boosting

- Till the errors become zero

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Stopping Criteria for Boosting

- Till the errors become zero
- There is a constraint on number of model

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