Advanced Ensemble Techniques

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Basic Ensemble Techniques

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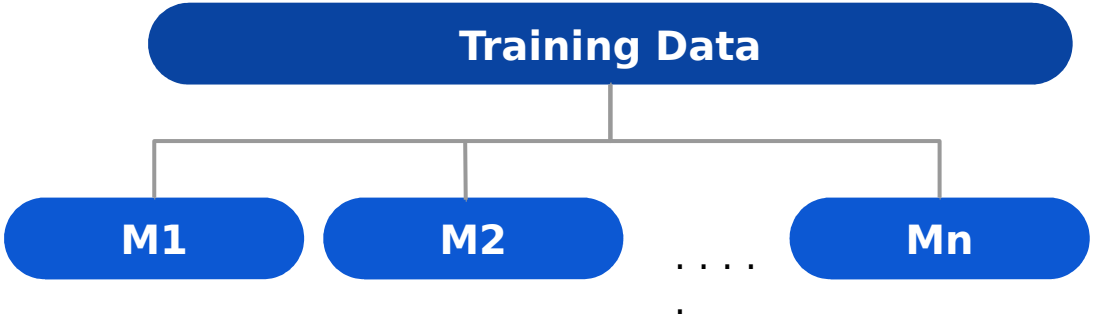

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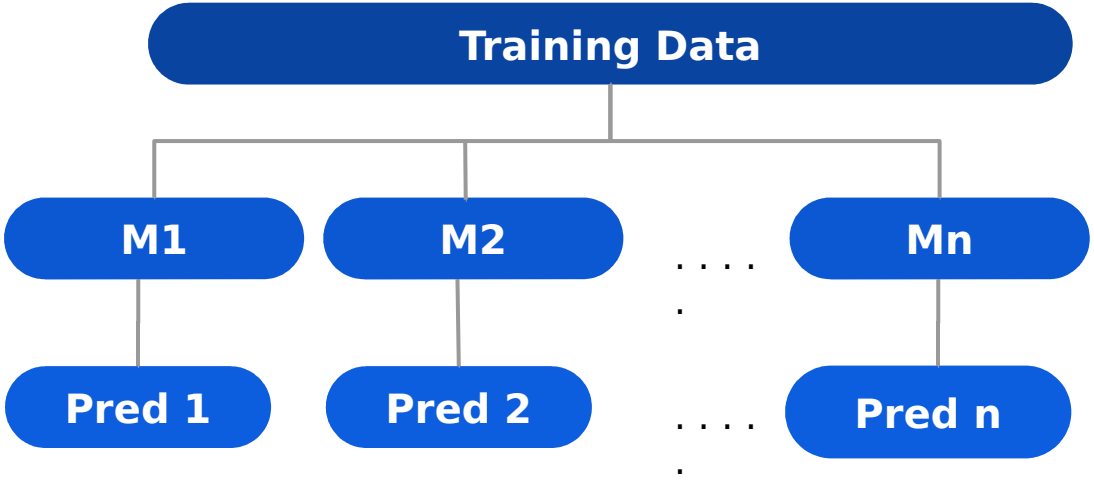

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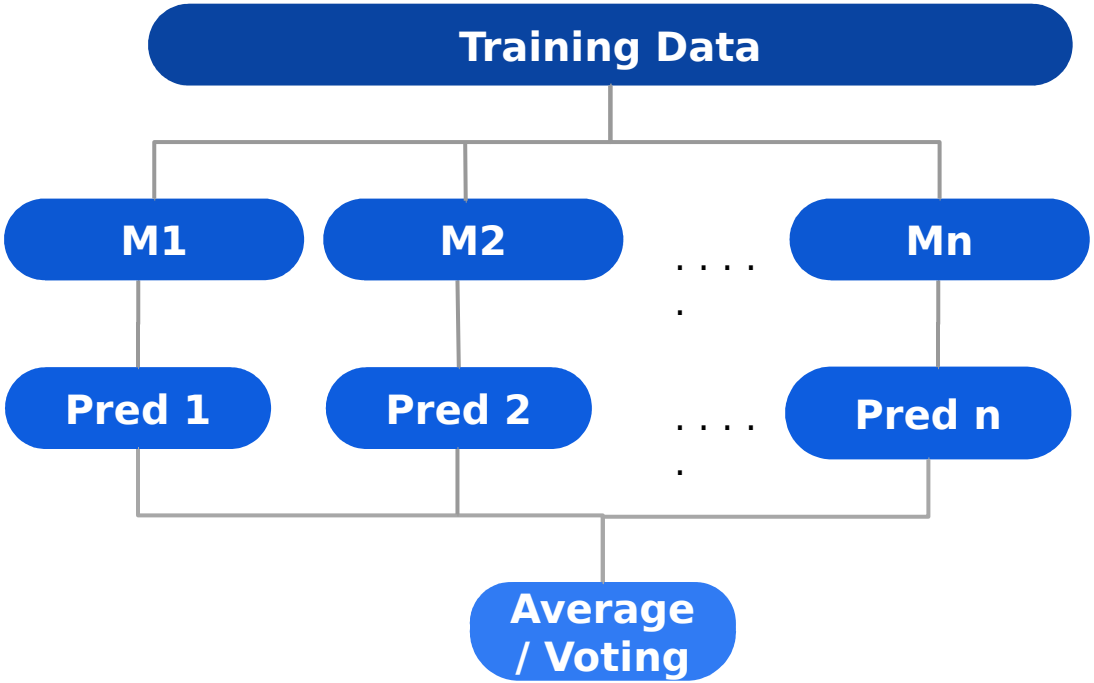

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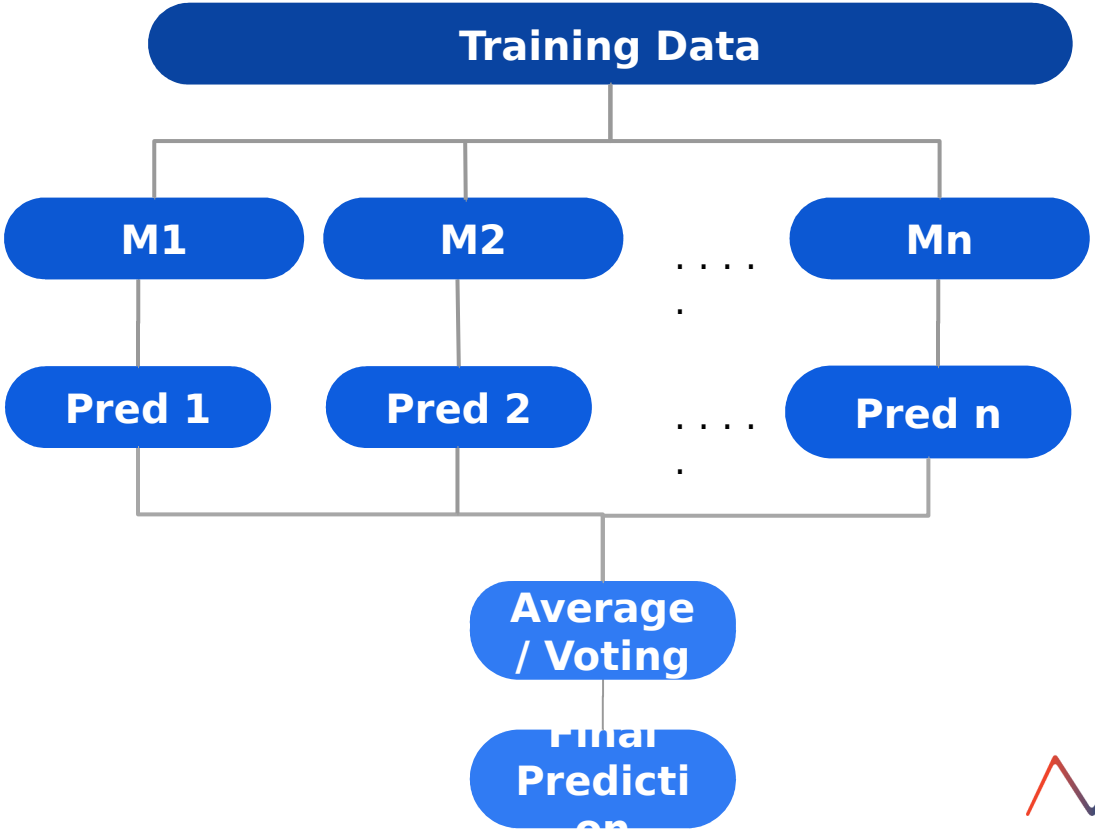

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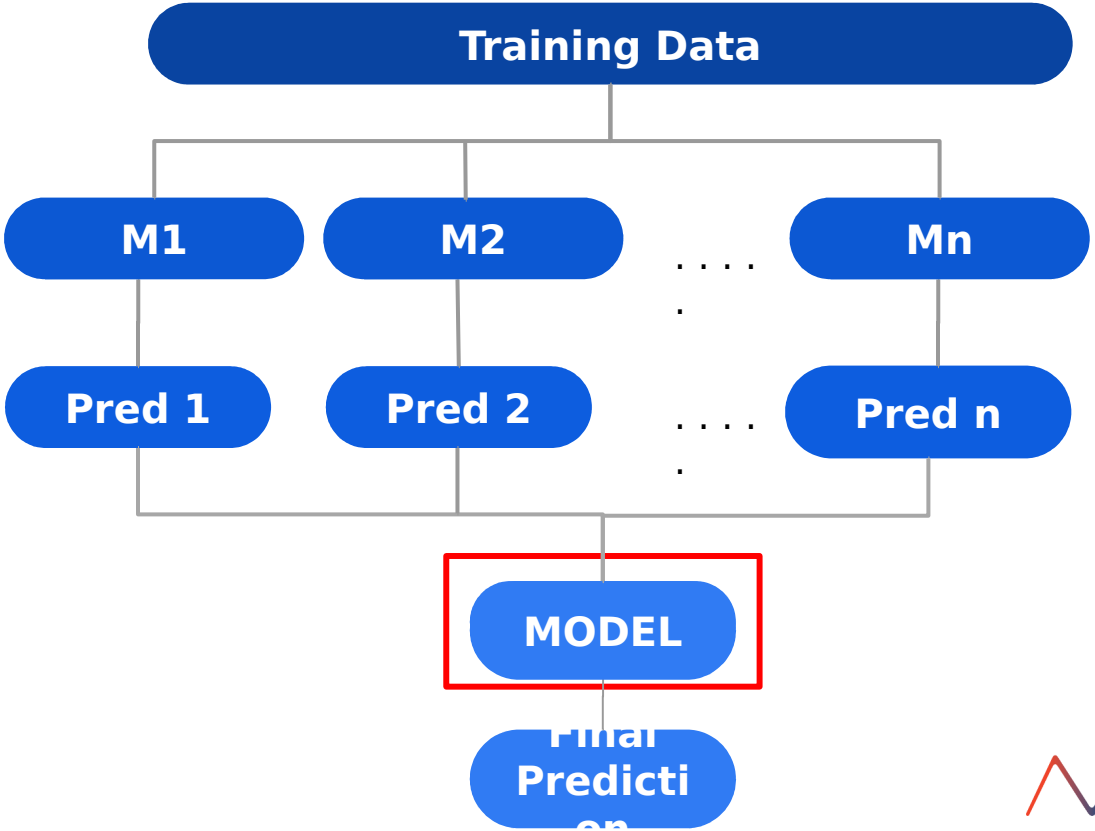

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Target

Features

PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch
1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0
2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0
3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0
4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0
5	0	3	Allen, Mr. William Henry	male	35.0	0	0

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Target

New Features

M1 M2 M3

PassengerId	Survived
1	0
2	1
3	1
4	1
5	0

Pred 1	Pred 2	Pred 3
0	1	0
0	1	1
1	1	0
1	0	1
0	0	0

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Max Voting

Target

New Features

M1 M2 M3

Max Voting

PassengerId	Survived
1	0
2	1
3	1
4	1
5	0

Pred 1	Pred 2	Pred 3
0	1	0
0	1	1
1	1	0
1	0	1
0	0	0

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Stacking

Target

PassengerId	Survived
1	0
2	1
3	1
4	1
5	0

New Features

M1 M2 M3

Pred 1	Pred 2	Pred 3
0	1	0
0	1	1
1	1	0
1	0	1
0	0	0

Max Voting

Logistic Regression

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Basic Ensemble Techniques

Features

Target

	Item_Identifier	Item_Weight	Item_Fat_Content	Item_Visibility	Item_Type	Item_MRP	Item_Outlet_Sales
0	FDA15	9.30	Low Fat	0.016047	Dairy	249.8092	3735.1380
1	DRC01	5.92	Regular	0.019278	Soft Drinks	48.2692	443.4228
2	FDN15	17.50	Low Fat	0.016760	Meat	141.6180	2097.2700
3	FDX07	19.20	Regular	0.000000	Fruits and Vegetables	182.0950	732.3800
4	NCD19	8.93	Low Fat	0.000000	Household	53.8614	994.7052

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Target

New Features

M1 M2 M3

	Item_Outlet_Sales	Predicted Values 1	Predicted Values 2	Predicted Values 3
0	3735.1380	3900	3000	3500
1	443.4228	390	340	500
2	2097.2700	2000	1900	2600
3	732.3800	700	600	750
4	994.7052	950	800	1060

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Averaging

Target | New Features

M1 | M2 | M3

	Item_Outlet_Sales	Predicted Values 1	Predicted Values 2	Predicted Values 3
0	3735.1380	3900	3000	3500
1	443.4228	390	340	500
2	2097.2700	2000	1900	2600
3	732.3800	700	600	750
4	994.7052	950	800	1060

Averaging

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Stacking

Target

New Features

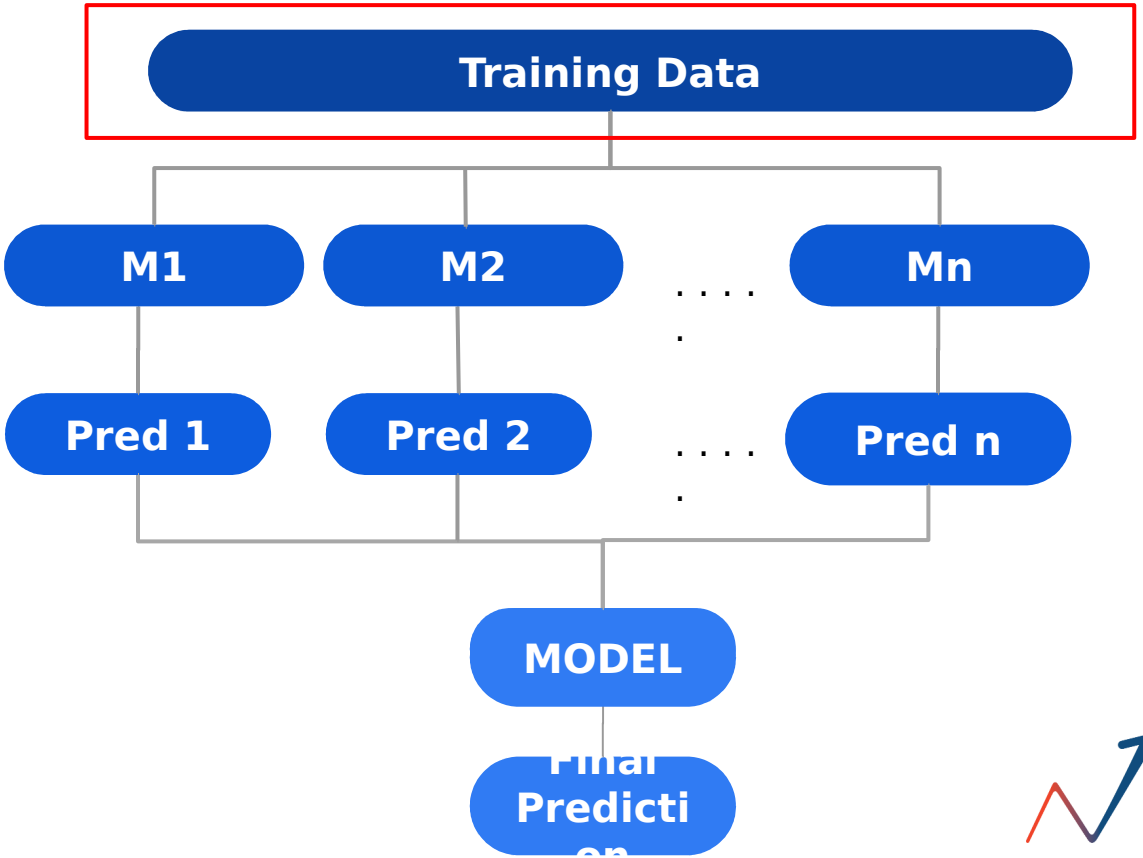
M1 M2 M3

	Item_Outlet_Sales	Predicted Values 1	Predicted Values 2	Predicted Values 3
0	3735.1380	3900	3000	3500
1	443.4228	390	340	500
2	2097.2700	2000	1900	2600
3	732.3800	700	600	750
4	994.7052	950	800	1060

Averaging

Linear Regression

Stacking



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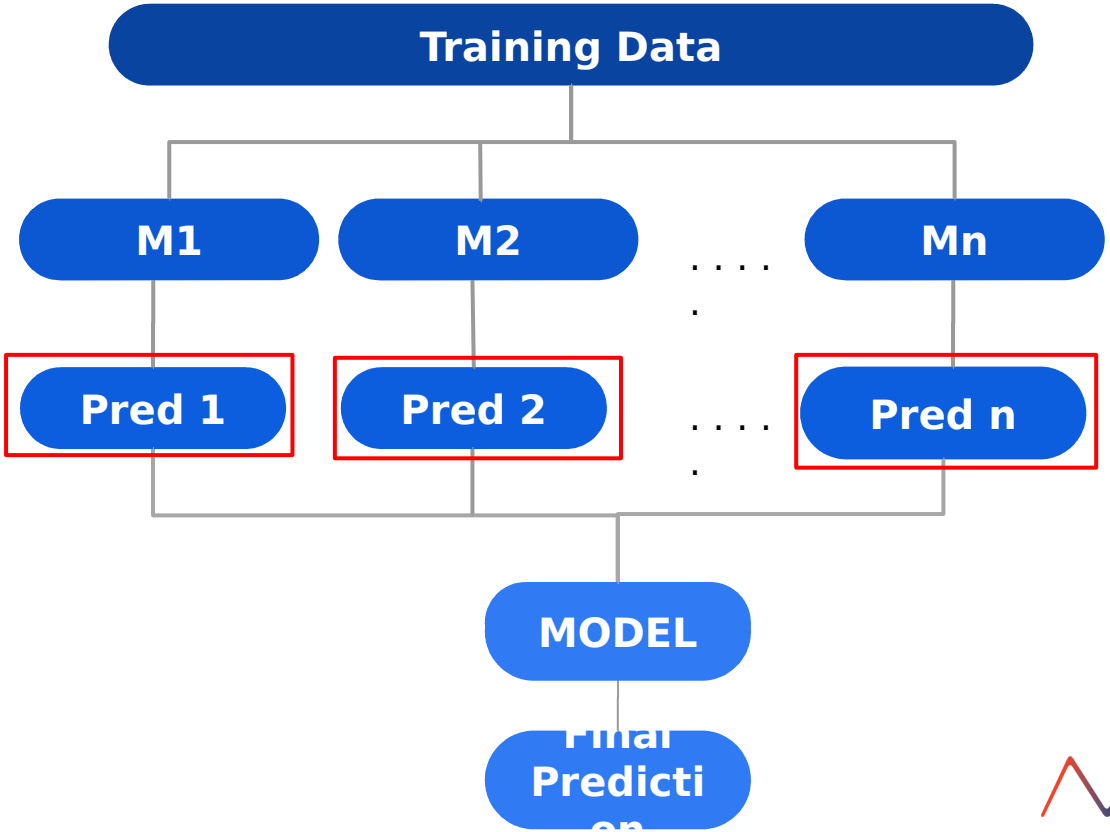
Stacking



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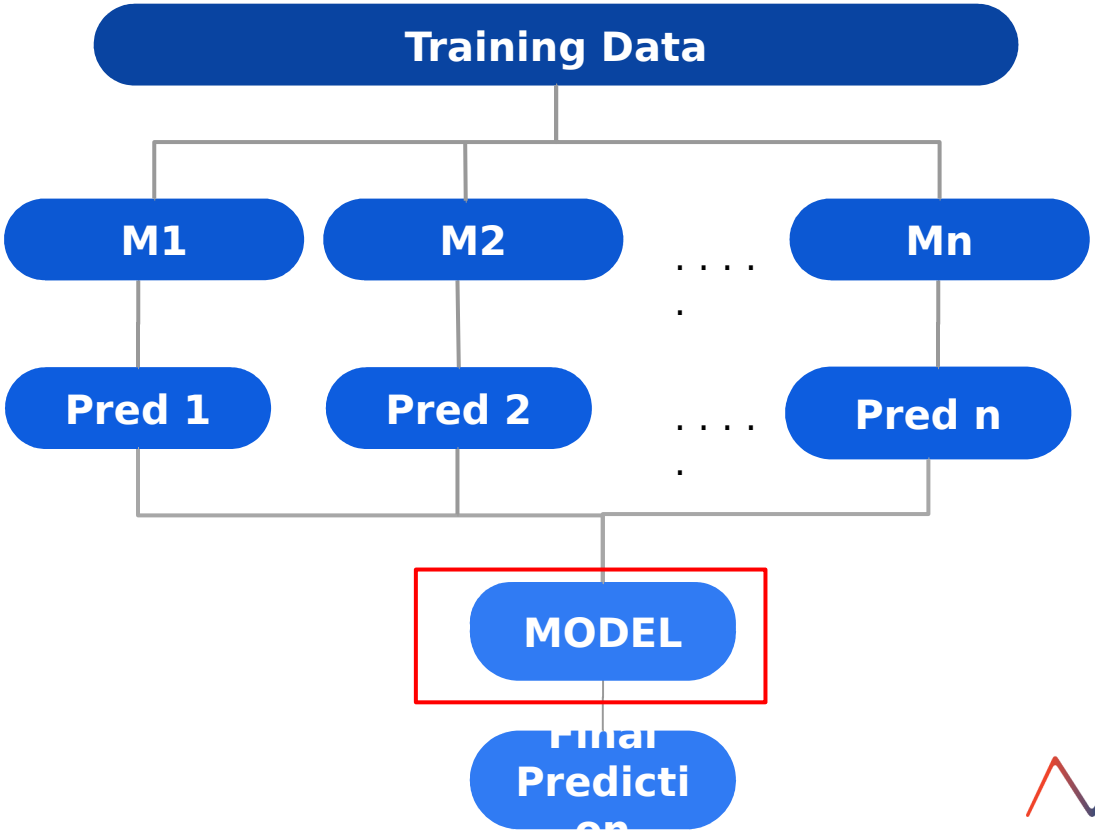
Stacking



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