

あいうえお!

	PassengerId	Survived	Pclass	Name	Sex	Age	SibSp	Parch	Ticket	Fare	Cabin	Embarked
0	1	0	3	Braund, Mr. Owen Harris	male	22.0	1	0	A/5 21171	7.2500	NaN	S
1	2	1	1	Cumings, Mrs. John Bradley (Florence Briggs Th...	female	38.0	1	0	PC 17599	71.2833	C85	C
2	3	1	3	Heikkinen, Miss. Laina	female	26.0	0	0	STON/O2. 3101282	7.9250	NaN	S
3	4	1	1	Futrelle, Mrs. Jacques Heath (Lily May Peel)	female	35.0	1	0	113803	53.1000	C123	S
4	5	0	3	Allen, Mr. William Henry	male	35.0	0	0	373450	8.0500	NaN	S
5	6	0	3	Moran, Mr. James	male	NaN	0	0	330877	8.4583	NaN	Q
6	7	0	1	McCarthy, Mr. Timothy J	male	54.0	0	0	17463	51.8625	E46	S
7	8	0	3	Palsson, Master. Gosta Leonard	male	2.0	3	1	349909	21.0750	NaN	S
8	9	1	3	Johnson, Mrs. Oscar W (Elisabeth Vilhelmina Berg)	female	27.0	0	2	347742	11.1333	NaN	S
9	10	1	2	Nasser, Mrs. Nicholas (Adele Achem)	female	14.0	1	0	237736	30.0708	NaN	C
10	11	1	3	Sandstrom, Miss. Marguerite Rut	female	4.0	1	1	PP 9549	16.7000	G6	S
11	12	1	1	Bonnell, Miss. Elizabeth	female	58.0	0	0	113783	26.5500	C103	S
12	13	0	3	Saunderscock, Mr. William Henry	male	20.0	0	0	A/5. 2151	8.0500	NaN	S
13	14	0	3	Andersson, Mr. Anders Johan	male	39.0	1	5	347082	31.2750	NaN	S
14	15	0	3	Vestrom, Miss. Hulda Amanda Adolfina	female	14.0	0	0	350406	7.8542	NaN	S

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	PassengerId	Survived	Pclass	Age	SibSp	Parch	Fare
count	891.000000	891.000000	891.000000	714.000000	891.000000	891.000000	891.000000
mean	446.000000	0.383838	2.308642	29.699118	0.523008	0.381594	32.204208
std	257.353842	0.486592	0.836071	14.526497	1.102743	0.806057	49.693429
min	1.000000	0.000000	1.000000	0.420000	0.000000	0.000000	0.000000
25%	223.500000	0.000000	2.000000	20.125000	0.000000	0.000000	7.910400
50%	446.000000	0.000000	3.000000	28.000000	0.000000	0.000000	14.454200
75%	668.500000	1.000000	3.000000	38.000000	1.000000	0.000000	31.000000
max	891.000000	1.000000	3.000000	80.000000	8.000000	6.000000	512.329200

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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
0	3.0	22.000000	1.0	0.0	7.2500	0.0	1.0	0.0	0.0	1.0
1	1.0	38.000000	1.0	0.0	71.2833	1.0	0.0	1.0	0.0	0.0
2	3.0	26.000000	0.0	0.0	7.9250	1.0	0.0	0.0	0.0	1.0
3	1.0	35.000000	1.0	0.0	53.1000	1.0	0.0	0.0	0.0	1.0
4	3.0	35.000000	0.0	0.0	8.0500	0.0	1.0	0.0	0.0	1.0
5	3.0	29.699118	0.0	0.0	8.4583	0.0	1.0	0.0	1.0	0.0
6	1.0	54.000000	0.0	0.0	51.8625	0.0	1.0	0.0	0.0	1.0
7	3.0	2.000000	3.0	1.0	21.0750	0.0	1.0	0.0	0.0	1.0
8	3.0	27.000000	0.0	2.0	11.1333	1.0	0.0	0.0	0.0	1.0
9	2.0	14.000000	1.0	0.0	30.0708	1.0	0.0	1.0	0.0	0.0
10	3.0	4.000000	1.0	1.0	16.7000	1.0	0.0	0.0	0.0	1.0
11	1.0	58.000000	0.0	0.0	26.5500	1.0	0.0	0.0	0.0	1.0
12	3.0	20.000000	0.0	0.0	8.0500	0.0	1.0	0.0	0.0	1.0
13	3.0	39.000000	1.0	5.0	31.2750	0.0	1.0	0.0	0.0	1.0
14	3.0	14.000000	0.0	0.0	7.8542	1.0	0.0	0.0	0.0	1.0

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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
count	891.000000	891.000000	891.000000	891.000000	891.000000	891.000000	891.000000	891.000000	891.000000	891.000000
mean	2.308642	29.699118	0.523008	0.381594	32.204208	0.352413	0.647587	0.188552	0.086420	0.722783
std	0.836071	13.002015	1.102743	0.806057	49.693429	0.477990	0.477990	0.391372	0.281141	0.447876
min	1.000000	0.420000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
25%	2.000000	22.000000	0.000000	0.000000	7.910400	0.000000	0.000000	0.000000	0.000000	0.000000
50%	3.000000	29.699118	0.000000	0.000000	14.454200	0.000000	1.000000	0.000000	0.000000	1.000000
75%	3.000000	35.000000	1.000000	0.000000	31.000000	1.000000	1.000000	0.000000	0.000000	1.000000
max	3.000000	80.000000	8.000000	6.000000	512.329200	1.000000	1.000000	1.000000	1.000000	1.000000

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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
0	3.0	34.50000	0.0	0.0	7.8292	0.0	1.0	0.0	1.0	0.0
1	3.0	47.00000	1.0	0.0	7.0000	1.0	0.0	0.0	0.0	1.0
2	2.0	62.00000	0.0	0.0	9.6875	0.0	1.0	0.0	1.0	0.0
3	3.0	27.00000	0.0	0.0	8.6625	0.0	1.0	0.0	0.0	1.0
4	3.0	22.00000	1.0	1.0	12.2875	1.0	0.0	0.0	0.0	1.0
5	3.0	14.00000	0.0	0.0	9.2250	0.0	1.0	0.0	0.0	1.0
6	3.0	30.00000	0.0	0.0	7.6292	1.0	0.0	0.0	1.0	0.0
7	2.0	26.00000	1.0	1.0	29.0000	0.0	1.0	0.0	0.0	1.0
8	3.0	18.00000	0.0	0.0	7.2292	1.0	0.0	1.0	0.0	0.0
9	3.0	21.00000	2.0	0.0	24.1500	0.0	1.0	0.0	0.0	1.0
10	3.0	30.27259	0.0	0.0	7.8958	0.0	1.0	0.0	0.0	1.0
11	1.0	46.00000	0.0	0.0	26.0000	0.0	1.0	0.0	0.0	1.0
12	1.0	23.00000	1.0	0.0	82.2667	1.0	0.0	0.0	0.0	1.0
13	2.0	63.00000	1.0	0.0	26.0000	0.0	1.0	0.0	0.0	1.0
14	1.0	47.00000	1.0	0.0	61.1750	1.0	0.0	0.0	0.0	1.0

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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
count	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000
mean	2.265550	30.272590	0.447368	0.392344	35.627188	0.363636	0.636364	0.244019	0.110048	0.645933
std	0.841838	12.634534	0.896760	0.981429	55.840500	0.481622	0.481622	0.430019	0.313324	0.478803
min	1.000000	0.170000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
25%	1.000000	23.000000	0.000000	0.000000	7.895800	0.000000	0.000000	0.000000	0.000000	0.000000
50%	3.000000	30.272590	0.000000	0.000000	14.454200	0.000000	1.000000	0.000000	0.000000	1.000000
75%	3.000000	35.750000	1.000000	0.000000	31.500000	1.000000	1.000000	0.000000	0.000000	1.000000
max	3.000000	76.000000	8.000000	9.000000	512.329200	1.000000	1.000000	1.000000	1.000000	1.000000

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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
862	1.0	48.000000	0.0	0.0	25.9292	1.0	0.0	0.0	0.0	1.0
223	3.0	29.699118	0.0	0.0	7.8958	0.0	1.0	0.0	0.0	1.0
84	2.0	17.000000	0.0	0.0	10.5000	1.0	0.0	0.0	0.0	1.0
680	3.0	29.699118	0.0	0.0	8.1375	1.0	0.0	0.0	1.0	0.0
535	2.0	7.000000	0.0	2.0	26.2500	1.0	0.0	0.0	0.0	1.0
623	3.0	21.000000	0.0	0.0	7.8542	0.0	1.0	0.0	0.0	1.0
148	2.0	36.500000	0.0	2.0	26.0000	0.0	1.0	0.0	0.0	1.0
3	1.0	35.000000	1.0	0.0	53.1000	1.0	0.0	0.0	0.0	1.0
34	1.0	28.000000	1.0	0.0	82.1708	0.0	1.0	1.0	0.0	0.0
241	3.0	29.699118	1.0	0.0	15.5000	1.0	0.0	0.0	1.0	0.0
794	3.0	25.000000	0.0	0.0	7.8958	0.0	1.0	0.0	0.0	1.0
2	3.0	26.000000	0.0	0.0	7.9250	1.0	0.0	0.0	0.0	1.0
6	1.0	54.000000	0.0	0.0	51.8625	0.0	1.0	0.0	0.0	1.0
17	2.0	29.699118	0.0	0.0	13.0000	0.0	1.0	0.0	0.0	1.0
368	3.0	29.699118	0.0	0.0	7.7500	1.0	0.0	0.0	1.0	0.0

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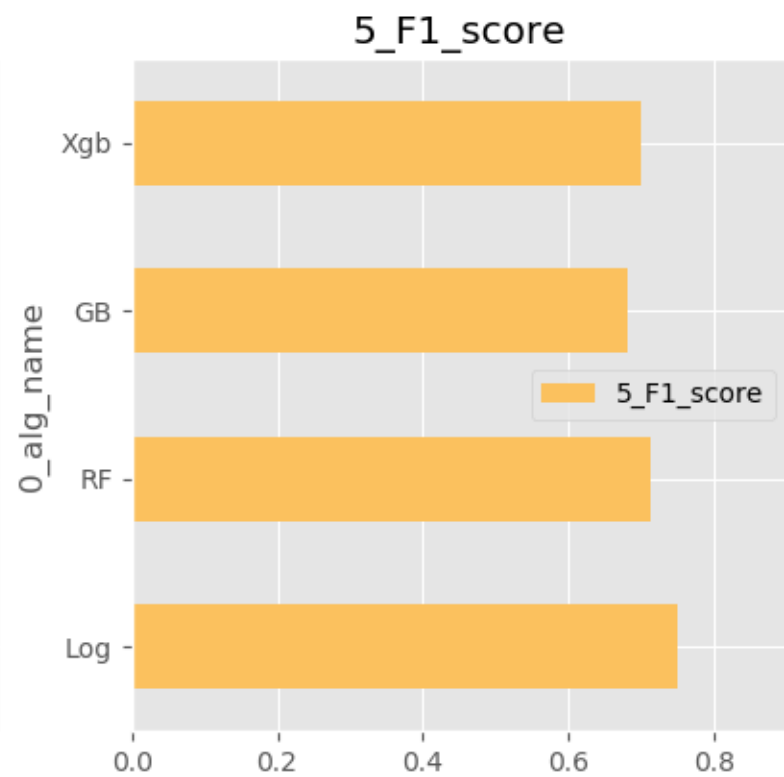
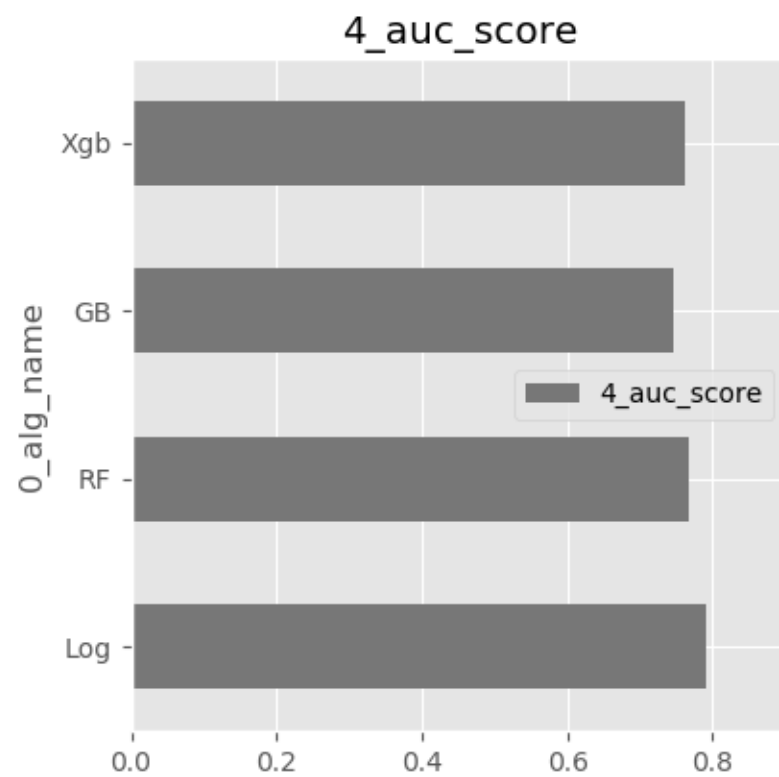
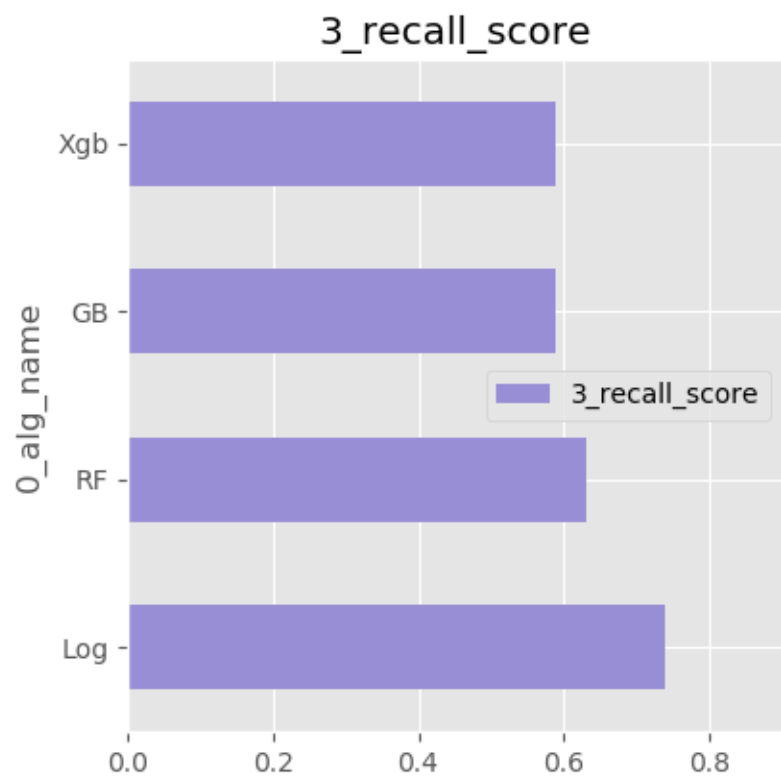
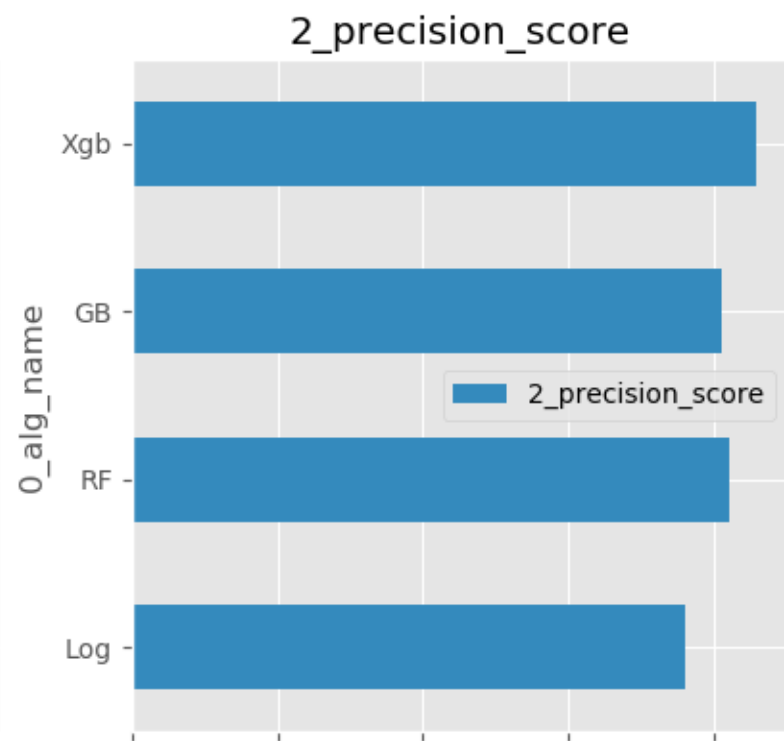
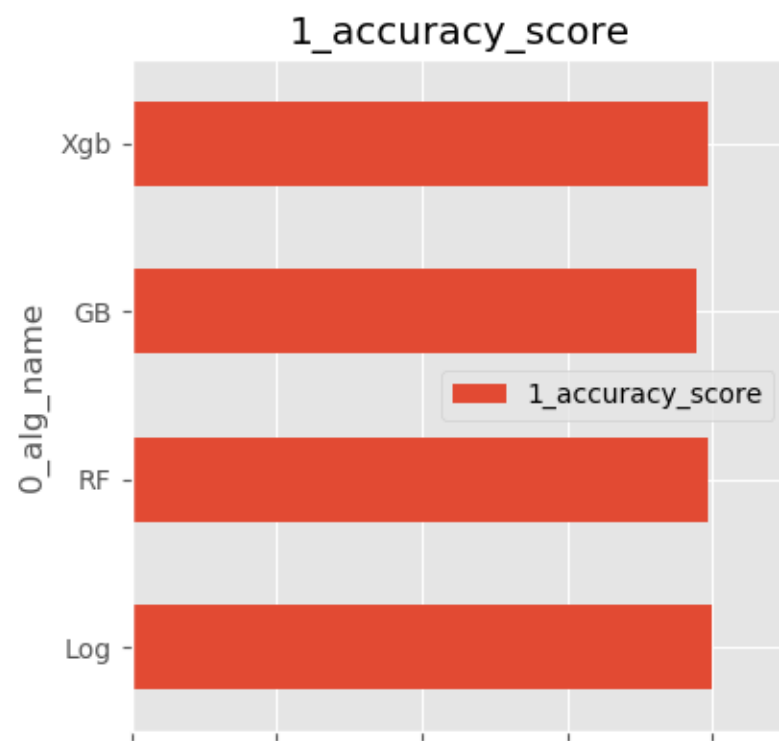
	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
count	179.000000	179.000000	179.000000	179.000000	179.000000	179.000000	179.000000	179.000000	179.000000	179.000000
mean	2.340782	28.216876	0.636872	0.424581	33.209125	0.363128	0.636872	0.195531	0.072626	0.731844
std	0.835357	11.802545	1.409033	0.917164	61.465755	0.482250	0.482250	0.397721	0.260249	0.444242
min	1.000000	0.750000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
25%	2.000000	22.000000	0.000000	0.000000	7.925000	0.000000	0.000000	0.000000	0.000000	0.000000
50%	3.000000	29.000000	0.000000	0.000000	14.454200	0.000000	1.000000	0.000000	0.000000	1.000000
75%	3.000000	32.000000	1.000000	0.000000	31.275000	1.000000	1.000000	0.000000	0.000000	1.000000
max	3.000000	61.000000	8.000000	5.000000	512.329200	1.000000	1.000000	1.000000	1.000000	1.000000

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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
301	3.0	29.699118	2.0	0.0	23.2500	0.0	1.0	0.0	1.0	0.0
309	1.0	30.000000	0.0	0.0	56.9292	1.0	0.0	1.0	0.0	0.0
516	2.0	34.000000	0.0	0.0	10.5000	1.0	0.0	0.0	0.0	1.0
120	2.0	21.000000	2.0	0.0	73.5000	0.0	1.0	0.0	0.0	1.0
570	2.0	62.000000	0.0	0.0	10.5000	0.0	1.0	0.0	0.0	1.0
730	1.0	29.000000	0.0	0.0	211.3375	1.0	0.0	0.0	0.0	1.0
228	2.0	18.000000	0.0	0.0	13.0000	0.0	1.0	0.0	0.0	1.0
563	3.0	29.699118	0.0	0.0	8.0500	0.0	1.0	0.0	0.0	1.0
311	1.0	18.000000	2.0	2.0	262.3750	1.0	0.0	1.0	0.0	0.0
613	3.0	29.699118	0.0	0.0	7.7500	0.0	1.0	0.0	1.0	0.0
194	1.0	44.000000	0.0	0.0	27.7208	1.0	0.0	1.0	0.0	0.0
185	1.0	29.699118	0.0	0.0	50.0000	0.0	1.0	0.0	0.0	1.0
339	1.0	45.000000	0.0	0.0	35.5000	0.0	1.0	0.0	0.0	1.0
274	3.0	29.699118	0.0	0.0	7.7500	1.0	0.0	0.0	1.0	0.0
875	3.0	15.000000	0.0	0.0	7.2250	1.0	0.0	1.0	0.0	0.0

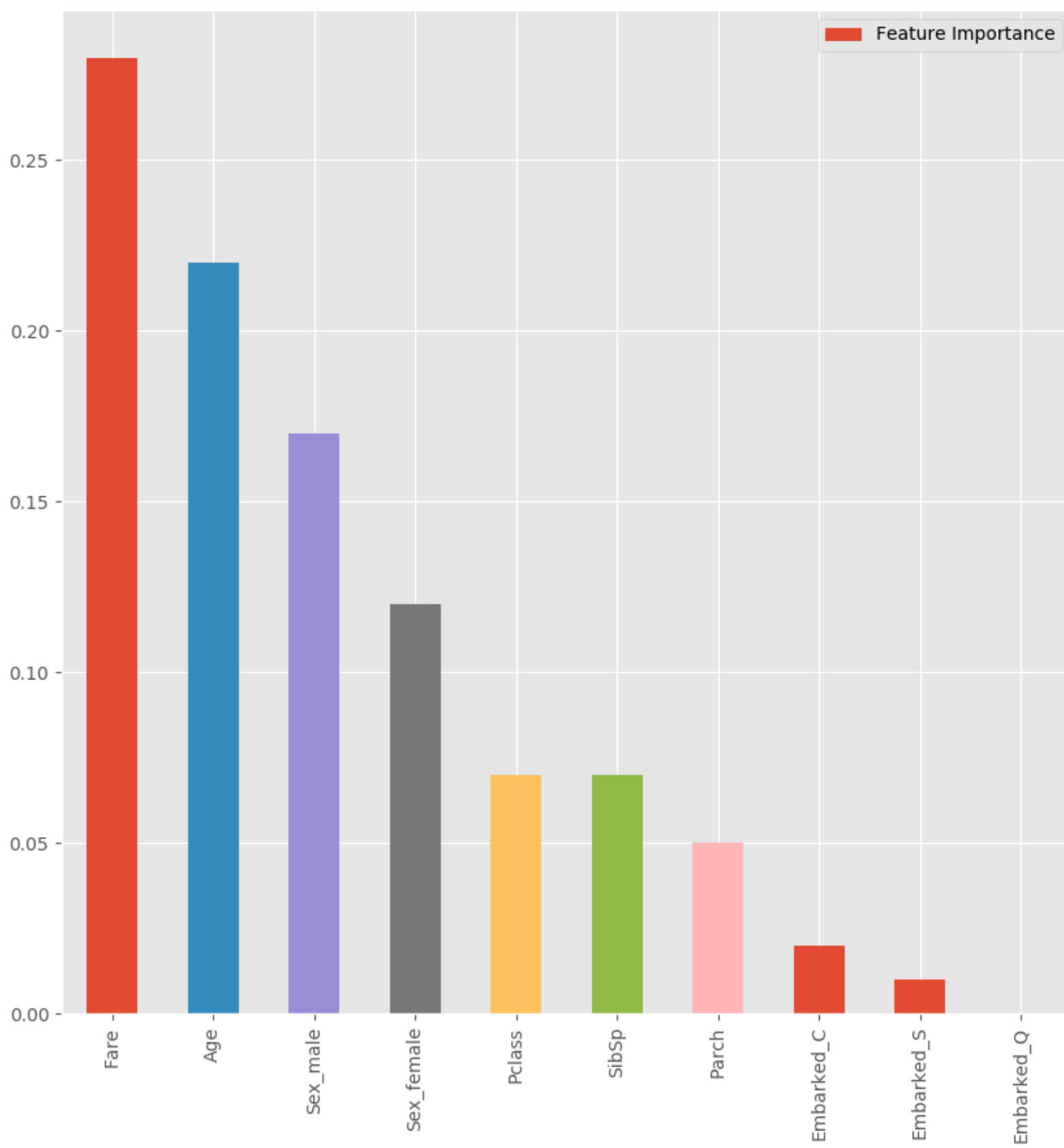
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	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S
count	712.000000	712.000000	712.000000	712.000000	712.000000	712.000000	712.000000	712.000000	712.000000	712.000000
mean	2.300562	30.071760	0.494382	0.370787	31.951567	0.349719	0.650281	0.186798	0.089888	0.720506
std	0.836643	13.268253	1.010478	0.775968	46.313942	0.477216	0.477216	0.390023	0.286222	0.449066
min	1.000000	0.420000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
25%	2.000000	22.000000	0.000000	0.000000	7.895800	0.000000	0.000000	0.000000	0.000000	0.000000
50%	3.000000	29.699118	0.000000	0.000000	14.458300	0.000000	1.000000	0.000000	0.000000	1.000000
75%	3.000000	36.000000	1.000000	0.000000	30.695800	1.000000	1.000000	0.000000	0.000000	1.000000
max	3.000000	80.000000	8.000000	6.000000	512.329200	1.000000	1.000000	1.000000	1.000000	1.000000



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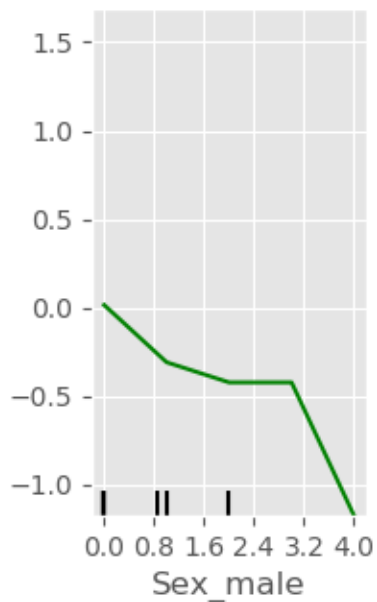
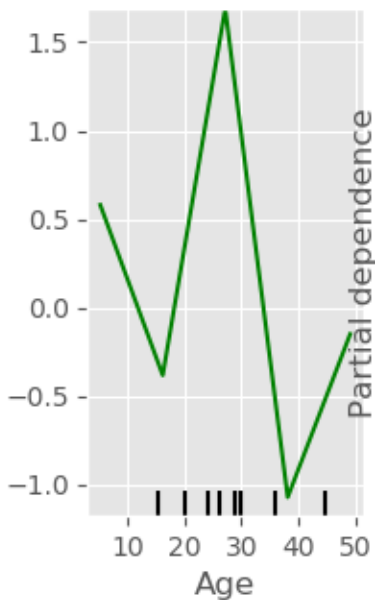
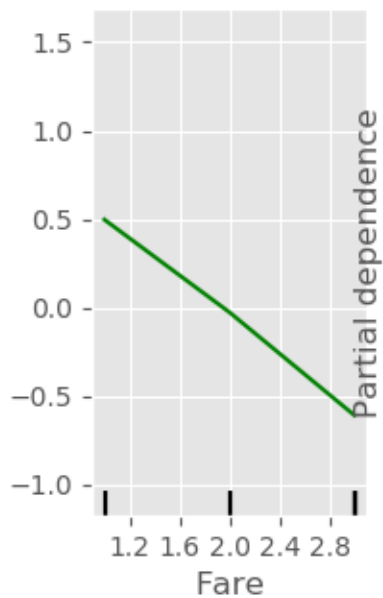
	0_alg_name	1_accuracy_score	2_precision_score	3_recall_score	4_auc_score	5_F1_score
0	Log	0.798883	0.760563	0.739726	0.789674	0.750000
1	RF	0.793296	0.821429	0.630137	0.767899	0.713178
2	GB	0.776536	0.811321	0.589041	0.747351	0.682540
3	Xgb	0.793296	0.860000	0.589041	0.761502	0.699187



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	Feature Importance
Fare	0.28
Age	0.22
Sex_male	0.17
Sex_female	0.12
Pclass	0.07
SibSp	0.07
Parch	0.05
Embarked_C	0.02
Embarked_S	0.01
Embarked_Q	0.00

Partial dependence



あいうえお!

	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S	GB_pred	Log_pred	RF_pred	Xgb_pred
count	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000	418.000000
mean	2.265550	30.272590	0.447368	0.392344	35.627188	0.363636	0.636364	0.244019	0.110048	0.645933	0.616233	0.603833	0.628794	0.639163
std	0.841838	12.634534	0.896760	0.981429	55.840500	0.481622	0.481622	0.430019	0.313324	0.478803	0.322794	0.308179	0.363722	0.363001
min	1.000000	0.170000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.028400	0.029600	0.000000	0.006900
25%	1.000000	23.000000	0.000000	0.000000	7.895800	0.000000	0.000000	0.000000	0.000000	0.000000	0.285150	0.325800	0.340000	0.266575
50%	3.000000	30.272590	0.000000	0.000000	14.454200	0.000000	1.000000	0.000000	0.000000	1.000000	0.753950	0.698100	0.740000	0.823600
75%	3.000000	35.750000	1.000000	0.000000	31.500000	1.000000	1.000000	0.000000	0.000000	1.000000	0.894175	0.891400	0.960000	0.948900
max	3.000000	76.000000	8.000000	9.000000	512.329200	1.000000	1.000000	1.000000	1.000000	1.000000	0.961000	0.989900	1.000000	0.997300

あいうえお!

	Pclass	Age	SibSp	Parch	Fare	Sex_female	Sex_male	Embarked_C	Embarked_Q	Embarked_S	GB_pred	Log_pred	RF_pred	Xgb_pred
0	3.0	34.50000	0.0	0.0	7.8292	0.0	1.0	0.0	1.0	0.0	0.8751	0.8974	0.9400	0.9546
1	3.0	47.00000	1.0	0.0	7.0000	1.0	0.0	0.0	0.0	1.0	0.8608	0.6963	0.6400	0.8808
2	2.0	62.00000	0.0	0.0	9.6875	0.0	1.0	0.0	1.0	0.0	0.8949	0.8882	0.8800	0.7688
3	3.0	27.00000	0.0	0.0	8.6625	0.0	1.0	0.0	0.0	1.0	0.8584	0.9137	0.9800	0.9850
4	3.0	22.00000	1.0	1.0	12.2875	1.0	0.0	0.0	0.0	1.0	0.5760	0.4371	0.5400	0.7173
5	3.0	14.00000	0.0	0.0	9.2250	0.0	1.0	0.0	0.0	1.0	0.6869	0.8601	0.8600	0.8624
6	3.0	30.00000	0.0	0.0	7.6292	1.0	0.0	0.0	1.0	0.0	0.4360	0.3233	0.6840	0.5306
7	2.0	26.00000	1.0	1.0	29.0000	0.0	1.0	0.0	0.0	1.0	0.9219	0.8002	0.9400	0.9763
8	3.0	18.00000	0.0	0.0	7.2292	1.0	0.0	1.0	0.0	0.0	0.1521	0.2446	0.1200	0.2093
9	3.0	21.00000	2.0	0.0	24.1500	0.0	1.0	0.0	0.0	1.0	0.9476	0.9434	0.9000	0.9943
10	3.0	30.27259	0.0	0.0	7.8958	0.0	1.0	0.0	0.0	1.0	0.9197	0.9239	1.0000	0.9489
11	1.0	46.00000	0.0	0.0	26.0000	0.0	1.0	0.0	0.0	1.0	0.7257	0.6595	0.8600	0.8801
12	1.0	23.00000	1.0	0.0	82.2667	1.0	0.0	0.0	0.0	1.0	0.0822	0.0650	0.0000	0.0210
13	2.0	63.00000	1.0	0.0	26.0000	0.0	1.0	0.0	0.0	1.0	0.9018	0.9513	0.9600	0.9564
14	1.0	47.00000	1.0	0.0	61.1750	1.0	0.0	0.0	0.0	1.0	0.0919	0.1594	0.0200	0.0478
15	2.0	24.00000	1.0	0.0	27.7208	1.0	0.0	1.0	0.0	0.0	0.1125	0.1454	0.0200	0.0797
16	2.0	35.00000	0.0	0.0	12.3500	0.0	1.0	0.0	1.0	0.0	0.8345	0.7197	0.9633	0.9265
17	3.0	21.00000	0.0	0.0	7.2250	0.0	1.0	1.0	0.0	0.0	0.8327	0.8478	0.4400	0.6025
18	3.0	27.00000	1.0	0.0	7.9250	1.0	0.0	0.0	0.0	1.0	0.3748	0.4982	0.7600	0.8405
19	3.0	45.00000	0.0	0.0	7.2250	1.0	0.0	1.0	0.0	0.0	0.5344	0.5006	0.4000	0.7583
20	1.0	55.00000	1.0	0.0	59.4000	0.0	1.0	1.0	0.0	0.0	0.6581	0.7311	0.5200	0.7407
21	3.0	9.00000	0.0	1.0	3.1708	0.0	1.0	0.0	0.0	1.0	0.4712	0.8278	0.4200	0.4737
22	1.0	30.27259	0.0	0.0	31.6833	1.0	0.0	0.0	0.0	1.0	0.0740	0.0620	0.0000	0.0097
23	1.0	21.00000	0.0	1.0	61.3792	0.0	1.0	1.0	0.0	0.0	0.5914	0.3076	0.4200	0.4338
24	1.0	48.00000	1.0	3.0	262.3750	1.0	0.0	1.0	0.0	0.0	0.0388	0.1080	0.0400	0.0434
25	3.0	50.00000	1.0	0.0	14.5000	0.0	1.0	0.0	0.0	1.0	0.9223	0.9753	1.0000	0.9808
26	1.0	22.00000	0.0	1.0	61.9792	1.0	0.0	1.0	0.0	0.0	0.0504	0.0296	0.0000	0.0093
27	3.0	22.50000	0.0	0.0	7.2250	0.0	1.0	1.0	0.0	0.0	0.8239	0.8557	0.3800	0.4979
28	1.0	41.00000	0.0	0.0	30.5000	0.0	1.0	0.0	0.0	1.0	0.5656	0.6111	0.4200	0.2531
29	3.0	30.27259	2.0	0.0	21.6792	0.0	1.0	1.0	0.0	0.0	0.9143	0.9432	0.9000	0.8968