

Evaluation results for RAGONITE pipeline with GPT-4o

			Accuracies (0/1)				Runtimes (seconds)					
Conversation	Question Type	Question	SPARQL-only	SQL-only	VBL-only	SQL+VBL	RAG	Retrieval	Tool selection	SQL Execution	Vector search	Answer
1	Complex	What is the cheapest X1 series car? How much is it?	1	1	1	1	5.843	3.700	0.994	0.000	0.710	2.140
1	Complex	Just curious - and what's the most expensive X7?	0	0	1	0	4.262	3.028	0.793	0.000	0.640	1.230
1	Complex	What are the key differences between X1 and X7 when it comes to their engines?	0	1	1	1	10.318	4.501	1.258	0.001	0.718	5.815
1	Abstract	So what are some of these luxury features in the X7?	0	1	1	1	7.342	3.522	0.949	0.001	0.666	3.817
1	Complex	Luxury comes at a cost. Are CO2 emissions of X7 much worse than, say, X1 models?	0	1	0	1	7.506	4.489	1.268	0.001	0.676	3.013
2	Lookup	What is the price of the BMW 320i Saloon?	0	0	1	0	5.731	4.843	1.342	0.000	0.807	0.886
2	Complex	And what is the average price of the Saloon models?	0	1	0	1	4.097	3.242	0.843	0.000	0.704	0.851
2	Complex	How does this compare to Touring models?	0	1	0	1	7.481	2.680	0.739	0.000	0.455	4.797
2	Abstract	What makes the Saloon models costlier?	0	1	1	1	6.079	3.661	1.072	0.432	0.000	2.413
2	Abstract	And what cool features do the Touring models have?	0	1	1	1	10.298	3.758	1.097	0.452	0.002	6.535
3	Complex	What is the average acceleration time to 100 kmph for Sport models?	0	1	0	1	3.997	3.203	0.878	0.001	0.562	0.792
3	Complex	And how does this compare to a typical X1 model?	0	1	0	1	6.118	3.120	0.872	0.000	0.494	2.996
3	Abstract	What characterizes BMW Sport models?	0	1	1	1	7.077	3.438	0.876	0.004	0.797	3.634
3	Complex	So what's the maximum power of Sport engines?	0	1	1	1	3.814	3.136	0.859	0.001	0.553	0.676
3	Abstract	What are the innovations in these Sport models compared to the X series?	0	1	1	1	6.909	3.830	1.089	0.552	0.000	3.076
4	Abstract	What is the Coupe series all about?	0	0	1	1	8.246	3.347	0.891	0.666	0.000	4.897
4	Lookup	What fuel types does it support?	0	0	1	1	7.111	6.151	1.917	0.001	0.392	0.954
4	Lookup	Seems like sleek sedans. Do they have only rear wheel drive?	0	0	1	1	10.908	8.769	1.500	0.001	2.753	2.134
4	Lookup	Can you tell me a bit about the transmission systems in Coupe models?	0	0	1	1	6.542	3.632	1.005	0.001	0.607	2.906
4	Complex	The Coupe models are sleek. Are these taller than an average X2 model?	0	0	0	1	6.756	4.581	1.041	0.001	0.404	2.172
5	Lookup	Do BMW Touring models have automatic air conditioning?	1	0	1	1	4.956	3.018	0.831	0.002	0.511	1.933
5	Lookup	Do they also have LED lights?	1	0	1	1	4.888	3.602	0.890	0.002	0.918	1.281
5	Abstract	What other cool features do these Touring Models have?	0	1	1	1	6.442	3.377	1.029	0.276	0.002	3.058
5	Abstract	What differentiates Touring models from Tourer models?	1	1	1	1	6.050	3.071	0.872	0.444	0.000	2.974
5	Lookup	Whats the combined CO2 emissions for the 530e m Sport Touring?	0	1	1	1	3.826	3.027	0.837	0.000	0.507	0.796
6	Lookup	What is the charging time of the 225e Active Tourer?	0	0	1	1	6.623	5.780	1.775	0.000	0.450	0.838
6	Lookup	And what's the car's height?	0	0	1	1	3.589	2.810	0.800	0.000	0.402	0.774
6	Lookup	And price?	0	0	1	1	4.875	4.028	0.852	0.000	0.608	0.843
6	Abstract	Is there any way to characterize these Active Tourer models? How can they charge so fast?	0	1	1	1	5.428	3.745	1.096	0.000	0.448	1.680
6	Abstract	Are iX xDrive engines compatible with the Active Tourer cars?	0	1	1	1	7.329	4.978	1.143	0.001	0.395	2.347
		TOTAL	4	18	24	28	190.441	118.067	31.408	2.840	16.181	72.258
		AVERAGE	0.133	0.600	0.800	0.933	6.348	6.344	1.047	0.095	0.539	2.409