

Name: Rahul Bhatnagar

Software and Data Engineering Project Part 2

Submitted To: Assistant Professor Sumit Kalra

Computer Science and Engineering

IIT Jodhpur

★ The results for the relational database queries (MySQL) on dataset D1 named "Building Permits" of size 467 MB is as follows:

	#	Time	Action	Message	Duratio n / Fetch
3	1	21:04:2 9	SELECT * FROM sdeproject.building_permit s LIMIT 0 , 3000	3000 row(s) returned	0.016 sec / 0.046 sec
3	2	21:04:4 1	SELECT * FROM sdeproject.building_permit s LIMIT 0 , 5000	4221 row(s) returned	0.000 sec / 0.047 sec
3	3	21:05:0 2	SELECT * FROM sdeproject.building_permit s LIMIT 0 , 10000	4221 row(s) returned	0.000 sec / 0.063 sec
3	4	21:05:1 9	SELECT * FROM sdeproject.building_permit s LIMIT 0 , 25000	4221 row(s) returned	0.000 sec / 0.047 sec
3	5	21:08:2 8	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,3000	3000 row(s) returned	0.000 sec / 0.032 sec
3	6	21:08:5 5	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,3500	3335 row(s) returned	0.015 sec / 0.032 sec
3	7	21:08:5 7	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,3500	3335 row(s) returned	0.000 sec / 0.046 sec
3	8	21:09:2 0	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,4000	3335 row(s) returned	0.000 sec / 0.062 sec

	#	Time	Action	Message	Duratio n / Fetch
3	9	121:10:2	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,3025	3025 row(s) returned	0.000 sec / 0.031 sec
3	1	121·10·4 I	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,3050	3050 row(s) returned	0.000 sec / 0.031 sec
3		121:10:5	select * from sdeproject.building_permits where street_number>1000 LIMIT 0,3300	3300 row(s) returned	0.000 sec / 0.047 sec
0	1 2	21:14:3 4	UPDATE sdeproject.building_permits SET CONTRACTOR_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER < 1000	Error Code: 1054. Unknown column 'CONTRACTOR_1_TYPE' in 'field list'	0.000 sec
0		21:15:2 8	UPDATE sdeproject.building_permits SET CONTRACT_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER < 1000	Error Code: 1054. Unknown column 'CONTRACT_1_TYPE' in 'field list'	0.000 sec
0	1	21:15:4	UPDATE sdeproject.building_permits SET CONTACT_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER < 1000	Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE that uses a KEY column. To disable safe mode, toggle the option in Preferences -> SQL Editor and reconnect.	0.000 sec
3	1 5	21:22:3 7	ALTER TABLE building_permits ADD PRIMARY KEY (ID)	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.703 sec
0	1	21:23:2	UPDATE sdeproject.building_permits SET CONTACT_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER < 1000	Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE that uses a KEY column. To disable safe mode, toggle the option in Preferences -> SQL Editor and reconnect.	0.000 sec

	#	Time	Action	Message	Duratio n / Fetch
0	1	21:24:4 8	ALTER TABLE sdeproject.building_permits ADD PRIMARY KEY (STREET_NUMBER)	Error Code: 1068. Multiple primary key defined	0.000 sec
0	1	21:25:2 2	CREATE UNIQUE INDEX idx_street_number ON sdeproject.building_permits (STREET_NUMBER)	Error Code: 1062. Duplicate entry '2350' for key 'building_permits.idx_street_number '	0.047 sec
0	1	21:25:4 5	UPDATE sdeproject.building_permits SET CONTACT_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER < 1000	Error Code: 1175. You are using safe update mode and you tried to update a table without a WHERE that uses a KEY column. To disable safe mode, toggle the option in Preferences -> SQL Editor and reconnect.	0.016 sec
3	2 0	21:27:0 9	SET SQL_SAFE_UPDATES = 0	0 row(s) affected	0.000 sec
3	2	21:27:1 6	UPDATE sdeproject.building_permits SET CONTACT_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER < 1000	861 row(s) affected Rows matched: 882 Changed: 861 Warnings: 0	0.140 sec
3		21:28:4 4	UPDATE sdeproject.building_permits SET CONTACT_1_TYPE = 'CIVIL' WHERE STREET_NUMBER > 1000 AND STREET_NUMBER < 5000	1886 row(s) affected Rows matched: 1886 Changed: 1886 Warnings: 0	0.265 sec
0	2	21:29:0 3	UPDATE sdeproject.building_permits SET CONTRACTOR_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER > 1000 AND STREET_NUMBER < 5000	Error Code: 1054. Unknown column 'CONTRACTOR_1_TYPE' in 'field list'	0.016 sec
3	2	21:29:1 4	UPDATE sdeproject.building_permits SET CONTACT_1_TYPE = 'ARCHITECT' WHERE STREET_NUMBER >	1886 row(s) affected Rows matched: 1886 Changed: 1886 Warnings: 0	0.359 sec

#	Time	Action	Message	Duratio n / Fetch
		1000 AND STREET_NUMBER < 5000		

The results for the relational database queries (MySQL) on dataset D2named "measurements" of 10 GB is as follows:

	#	Time	Action	Message	Duration / Fetch
3	1	121 <i>-1</i> 44-001	SELECT * FROM sdeproject.measurements LIMIT 0, 5000	5000 row(s) returned	0.000 sec / 0.016 sec
3	2	21:44:29	SELECT * FROM sdeproject.measurements LIMIT 0, 10000	10000 row(s) returned	0.000 sec / 0.031 sec
3	3		SELECT * FROM sdeproject.measurements LIMIT 0, 15000	15000 row(s) returned	0.000 sec / 0.031 sec
3	4		SELECT * FROM sdeproject.measurements LIMIT 0, 20000	20000 row(s) returned	0.000 sec / 0.079 sec
3	5	21:45:02	SELECT * FROM sdeproject.measurements LIMIT 0, 25000	25000 row(s) returned	0.000 sec / 0.094 sec
3	6		SELECT * FROM sdeproject.measurements LIMIT 0, 30000	30000 row(s) returned	0.000 sec / 0.156 sec
3	7		SELECT * FROM sdeproject.measurements LIMIT 0, 35000	35000 row(s) returned	0.000 sec / 0.156 sec
3	8		SELECT * FROM sdeproject.measurements LIMIT 0, 40000	40000 row(s) returned	0.000 sec / 0.203 sec

	#	Time	Action	Message	Duration / Fetch
3	9		SELECT * FROM sdeproject.measurements LIMIT 0, 45000	45000 row(s) returned	0.000 sec / 0.203 sec
3	10		SELECT * FROM sdeproject.measurements LIMIT 0, 50000	48501 row(s) returned	0.000 sec / 0.235 sec
3	11		SELECT * FROM sdeproject.measurements WHERE Value > 100 LIMIT 0, 25000	18947 row(s) returned	0.000 sec / 0.110 sec
3	12		SELECT * FROM sdeproject.measurements WHERE Value > 100 LIMIT 0, 5000	5000 row(s) returned	0.000 sec / 0.015 sec
3	13		SELECT * FROM sdeproject.measurements WHERE Value > 100 LIMIT 0, 10000	10000 row(s) returned	0.000 sec / 0.047 sec
3	14	21:50:25	SELECT * FROM sdeproject.measurements WHERE Value > 100 LIMIT 0, 15000	15000 row(s) returned	0.016 sec / 0.094 sec
3	15		SELECT * FROM sdeproject.measurements WHERE Value > 100 LIMIT 0, 20000	18947 row(s) returned	0.016 sec / 0.141 sec
3	16	21:52:07	UPDATE sdeproject.measurements SET Value = 500 WHERE Latitude < 0	0 row(s) affected Rows matched: 0 Changed: 0 Warnings: 0	0.063 sec
3	17		UPDATE sdeproject.measurements SET Radiation = 'High' WHERE Latitude > 0 AND Latitude < 30	12896 row(s) affected Rows matched: 12896 Changed: 12896 Warnings: 0	0.875 sec
3	18	21:52:32	UPDATE sdeproject.measurements SET Height = 'Tall' WHERE Latitude > 30	35605 row(s) affected Rows matched: 35605 Changed: 35605 Warnings: 0	2.140 sec