

Section	Title	Page
<b>One</b>	<b>Introduction to MySql</b>	2
	– Definition of SQL	3
	– Definition of a Database	4
<b>Two</b>	<b>Database Tables</b>	5
	– Database Views	10
<b>Three</b>	<b>The MySQL Interface</b>	11
	– Introduction	12
	– Interface Keys	13
	– Copying and Pasting	14
	– Help	17
	– Exiting MySQL	18
<b>Four</b>	<b>Simple Queries</b>	19
	– Introduction	20
	– Show Tables	21
	– Show Columns	24
	– Basic interrogation of a Table	26
	– Running existing SQL	31
	– Saving output to a file	32
	– <i>Exercise One</i>	38
	– SQL Syntax	42
	– Displaying Literals in a Select statement	45
	– Displaying Current Date in a Select statement	48
	– Column Aliases	50
	– Ordering Data	54
	– Ordering more than One Column	57
	– Performing Calculations	58
	– Commenting	59
	– <i>Exercise Two</i>	60
	<b>Five</b>	<b>Using Functions</b>
– Counting Records in a Table		67
– Summing Records in a Table		69
– Highest/Lowest/Average Records in a Table		70
– Distinct Records in a Table		71
– Row Functions		72
– Changing Case		73
– Length		74
– Rounding Values		75
– Substring		77
– Coalesce		79
– Ifnull		81
– Format		82
– Concat		83
– Concat_ws		84
– Nesting Functions		85
– Manipulating Dates using date_add		86
– Displaying Dates using date_format	88	
– <i>Exercise Three</i>	90	
<b>Six</b>	<b>Limiting Data Selected with a Where Clause</b>	95
	– Limiting Data	96
	– Equals	97
	– Not Equals	98
	– Less than / Greater than	99

Section	Title	Page
	- IN	100
	- Between	101
	- Wildcards (Like)	103
	- Column comparison	111
	- Handling Nulls	112
	- Case Restrictions	113
	- Using Functions	114
	- Joining Where Clauses	116
	- Sub-queries using IN	118
	- Sub-queries using more than one column	120
	- Sub-queries using Exists	123
	- Sub-queries using Not Exists	125
	- Sub-queries using other where clauses	126
	- Using Limit	127
	- <i>Exercise Four</i>	130
<b>Seven</b>	<b>Aggregating Values in MySQL</b>	136
	- Introduction	137
	- Group By	138
	- Having	141
	- Using With Rollup to Total Grouping	143
	- <i>Exercise Five</i>	144
<b>Eight</b>	<b>Regular Expressions</b>	148
	- Introduction	149
	- Testing for 'Contains' within a String	150
	- Starts or Ends using Line Anchors	152
	- Starts and Ends using Line Anchors (or)	154
	- Using the Dot (Any Character)	155
	- Using {Intervals}	157
	- Using Character Lists []	159
	- Using Character Lists to exclude matches	162
	- POSIX	163
	- Using the Question Mark (Optional)	165
	- Using the Plus sign (Mandatory)	167
	- Using the Star sign (Optional)	168
	- <i>Exercise Six</i>	169
<b>Nine</b>	<b>Joining Tables in an SQL Statement</b>	171
	- Introduction	172
	- Identifying Columns and its Table	173
	- Cartesian products	175
	- Linking Tables	176
	- Methods of joining tables	178
	- ANSI SQL86	179
	- ANSI SQL99	181
	- ANSI SQL99 (Natural Joins)	182
	- ANSI SQL99 (Cross Joins)	183
	- ANSI SQL99 (Using)	184
	- ANSI SQL99 (On)	185
	- ANSI SQL99 (Multiple On)	186
	- ANSI SQL99 Outer Joins	187
	- ANSI SQL99 (Left Outer Joins)	190
	- ANSI SQL99 (Right Outer Joins)	191
	- ANSI SQL99 (Full Outer Joins)	192

Section	Title	Page
	- Merging Tables	193
	- Using Union to Merge Tables	194
	- Using Union All to Merge Tables	195
	- Using Intersect to Merge Tables	196
	- Using Minus to Merge Tables	197
	- Knowledge Check	198
	- Knowledge Check - Union	199
	- Knowledge Check – Union All	200
	- Knowledge Check - Intersect	201
	- Knowledge Check - Minus	202
	- Using the Merge Syntax	203
	- Intersect Syntax	204
	- Minus Syntax	205
	- <i>Exercise Seven</i>	206
<b>Ten</b>	<b>More MySql Query Techniques</b>	211
	- Using If	212
	- Using Ifnull	213
	- Using Nullif	214
	- Using Case Function	215
	- Using Inline SQL	220
	- Using Inline SQL with Select	221
	- Using Correlated Inline SQL with Select	222
	- Using Inline SQL with From	223
	- Using Set to create variables	224
	- Populating a Variable from a Query	225
	- Clearing a User Variable	227
	- <i>Exercise Eight</i>	228
<b>Eleven</b>	<b>MySQL Datatypes</b>	233
	- Introduction	234
	- Numeric Datatypes (Integer)	235
	- Numeric Datatypes (Decimal)	236
	- String Text Datatypes	237
	- String Blob Datatypes	238
	- String List Datatypes	239
	- Date Datatypes	240
<b>Twelve</b>	<b>Creating Database Objects</b>	241
	- Creating Tables	242
	- Mandatory Columns Tables	244
	- Creation Syntax for Tables	245
	- Column Creation	249
	- AUTO_INCREMENT	251
	- Last_insert_id	252
	- Drop Table Syntax	253
	- Temporary Tables	254
	- Creating Indexes	256
	- Primary Key Creation	259
	- Primary Key Removal	261
	- Unique Key Creation	262
	- Foreign Key Creation	265
	- On Delete / On Update	267
	- CASCADE	270
	- SET NULL	271

Section	Title	Page
	– NO ACTION	272
	– RESTRICT	273
	– SET DEFAULT	274
	– Creating Views	275
	– Dropping Views	278
	– Renaming Views and Tables	279
	– Listing Views	280
	– <i>Exercise Nine</i>	281
<b>Thirteen</b>	<b>Altering Elements</b>	<b>283</b>
	– Altering Tables	284
<b>Fourteen</b>	<b>Inserting and Altering Data</b>	<b>287</b>
	– Rules	288
	– Syntax for Populating Tables	289
	– Inserting using the Set syntax	295
	– Multiple Inserts	296
	– On Duplicate Key Update	297
	– Using Replace for Inserting Records	298
	– General Comments	301
	– Updating Records Rules	302
	– Updating Data Tables	303
	– Deleting Data	306
	– Truncate	307
	– Inserting Large Objects	308
	– Extracting Large Objects	309
	– Views	310
	– <i>Exercise Ten</i>	314
<b>Fifteen</b>	<b>Prepared Statements</b>	<b>321</b>
	– Introduction	322
	– Preparing the Statement	323
	– Removing Prepared Statements	324
	– Using Parameters	325
<b>Sixteen</b>	<b>Committing Records</b>	<b>327</b>
	– DDL and DML	328
	– Autocommit	330
	– Commit and Rollback	331
	– Transactions	333
	– What happens if disconnected ?	335
	– Savepoints	336
<b>Seventeen</b>	<b>Importing and Exporting</b>	<b>340</b>
	– Saving output to a file	341
	– Saving output to Variables	347
	– Importing Data using Infile	348
	– Ignoring Lines using Infile	350
	– Using the Set command with Infile	351
	– Using the Lines option with Infile	354
	– Loading comma separated files	355
	– Loading XML files	357
	– Loading XML files using Ignore	359
	– Loading XML file naming Columns	360
	– Loading XML file using Set	361
	– <i>Exercise Eleven</i>	362

Section	Title	Page
<b>Eighteen</b>	<b>MySQL User Defined Processes</b>	364
	- Delimiter	367
<b>Nineteen</b>	<b>Procedures</b>	369
	- Introduction	370
	- Dropping	371
	- Viewing	372
	- Calling	375
	- Syntax	376
	- Body	377
	- Variables	378
	- Messaging	383
	- Signal	385
	- DML and DDL	389
	- Passing Parameters	392
	- <i>Exercise Twelve</i>	399
	- Conditional Statements	403
	- <i>Exercise Thirteen</i>	413
	- Explicit Cursors	415
	- Looping	422
	- While Looping	423
	- Loop Labels	425
	- Repeat Looping	427
	- Repeat Looping with leave	429
	- Loop	430
	- Loop with Iterate	431
	- Looping Tables	432
	- <i>Exercise Fourteen</i>	436
<b>Twenty</b>	<b>Handler</b>	441
	- Introduction	442
	- Handler Types	443
	- MySQL Error Code	444
	- Error Types	449
	- SQLState	450
	- SQLWarning	452
	- Not Found	453
	- SQLException	454
	- Condition Name	455
<b>Twenty One</b>	<b>Functions</b>	456
	- Introduction	457
	- Dropping	458
	- Viewing	459
	- Calling	462
	- Syntax	464
	- Parameters	466
	- Functions without Bodies	467
	- <i>Exercise Fifteen</i>	468

Section	Title	Page
<b>Twenty Two</b>	<b>Advanced Declaration</b>	472
	- Introduction	473
	- Comment	474
	- Deterministic	476
	- SQL	478
	- SQL Security	480
	- Language	482
<b>Twenty Three</b>	<b>Triggers</b>	483
	- Introduction	484
	- Dropping	485
	- Viewing	486
	- Suggested Naming Conventions	489
	- Basic Syntax	490
	- Referencing Values	493
	- Follows / Precedes	498
	- Enabling / Disabling	501
	- Problems	504
<b>Twenty Four</b>	<b>Miscellaneous MySQL</b>	507
	- Sleep	508
	- Do	509
	- Events	511
	- <i>Exercise Sixteen</i>	523
<b>Appendices :</b>		
<b>Appendix SQL1</b>	- <b>Date Formats</b>	
<b>Appendix SQL2</b>	- <b>String Formats</b>	
<b>Appendix SQL3</b>	- <b>Number Functions</b>	
<b>Appendix SQL4</b>	- <b>Date Functions</b>	
<b>Delegate Questionnaire</b>		