

SQL for Users Part III

Section	Title	Page
One	Joining Tables using Data Sets	2
	- Creating Data Sets	3
	- Union Syntax	4
	- Union	5
	- Union Example	6
	- Join Rules	8
	- Union All	9
	- Intersect	12
	- Minus	14
	- Knowledge Check	16
	- Tree Walks	21
	- Tree Walking Syntax	23
	- Use of Level	26
	- Use of Nocycle (ORA-01436)	27
	- Use of Connect_by_iscycle	29
	- Advanced Ordering of Tree Walks using Siblings	30
	- Output of Tree Walks using Sys_Connect_By_Path	31
	- Limiting Records using Connect_by_isleaf	32
	- Showing the Root using Connect_by_root	34
	- <i>Exercise One</i>	36
	Two	Advanced SQL Query Functions/Techniques
- Introduction		43
- Pivot		44
- Adding a Total to a Pivot		49
- Changing the Pivot Headings of the X Axis		50
- Rotating the Axis of the Pivot		52
- Unpivot		53
- Unpivot and Null values		56
- Using First_Value/Last_Value in SQL		57
- Ignoring Nulls with First/Last_Value		59
- Window Specification		60
- Breakdown of Window Specification		61
- Window Specification – The Arguments		63
- Window Specification – The Query Partition		64
- Window Specification – The Order By		66
- Window Specification – The Windowing		68
- Window Specification – Rows between		70
- Window Specification – Shortcuts		74
- Difference between Range and Rows		75
- Using Lead and Lag in SQL		78
- Using Rank Function in SQL		82
- Using Ntile Function in SQL		89
- Using Width_Bucket Function in SQL		91
- Using Listagg Function in SQL		94

SQL for Users Part III

Section	Title	Page
	- <i>Exercise Two</i>	96
Three	Advanced Date Datatypes	102
	- Introduction	103
	- Database Timezone	104
	- Date Datatypes	106
	- Timestamp	110
	- Extract	115
	- Timestamp with Time Zone	116
	- Time Zone with Extract	117
	- TZ_Offset	118
	- Time Zones and UTC	119
	- From_TZ	121
	- Timestamp with Local Time Zone	122
	- Intervals	123
	- Using Intervals	126
	- Intervals and Extract	129
	- Exercise Three	130
Four	Aggregating Values in Oracle SQL 11g	134
	- Introduction	135
	- Using Distinct with other Aggregates	136
	- Using Group By	137
	- Using Group By with Aliases	140
	- Using Group By with Many Columns	141
	- Using Having with Group By	143
	- Using Rollup to 'Sum' the Group By	145
	- Using Partial Rollup with several non-aggregates	147
	- Using Full Rollup with several non-aggregates	148
	- Getting the Total to the Top	149
	- Using Cube with Group By	150
	- Using Grouping Sets with Group By	152
	- Using Grouping ID with Grouping Sets	154
	- Using Group ID with Group By	156
	- Nesting Group Functions	158
Five	Flashback	161
	- Introduction	162
	- Flashback Query	163
	- Using the Dbms_Flashback package	167
	- Using Time Flashbacks	168
	- Disabling Flashbacks	172
	- Using SCN Flashbacks	173
	- Implicit Flashback using AS OF	175
	- Flashback using Versions Between	177
	- Using Flashback_transaction_query View	182
	- <i>Exercise Four</i>	185

SQL for Users Part III

Appendices:

- Appendix S1 – SQL Functions**
- Appendix S2 – SQL Line Editor Commands**
- Appendix S3 – SQL Environment Settings**
- Appendix S4 – SQL Syntax**
- Appendix S5 – SQL Number Formats**
- Appendix S6 – SQL Date Formats**

Delegate Questionnaire