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Oracle PL/SQL Cheatsheet

	Symbols		Control Flow
;	Statement terminator	IF..THEN..ELSE..ENDIF;	As usual.
%	Attribute indicator (cursor attributes %ISOPEN and indirect declaration attributes like %ROWTYPE). Also use multibyte wildcard symbol, as in SQL	LOOP .. IF (condition) THEN EXIT END IF; .. END LOOP;	Equivalent to if (condition) then
_	Single-byte wildcard symbol, as in SC	WHILE cond LOOP..END LOOP;	while () {};
:	Host variable indicator, such as :block in Oracle Forms	FOR var IN n..m LOOP .. END LOOP;	for thing in range(n,m) {}
**	Exponentiation operator	EXECUTE function_name;	Function call FUNCTION name (parameter type,..) ..body.. END
< > and !=	Not equals"		Opens cursor, loops across until %NOTFOUND.
	Concatenation operator	Cursor for.	FOR variables IN cursor LOOP..E LOOP;
<< and >>	Label delimiters		
:	Assignment operator		
=>	Association operator for positional no		
--	Double dash: single-line comment indicator	Implicit cursor named by developer.	Think of it as a select statement th name.
/* and */	Beginning and ending multiline comment block delimiters	Implicit cursor is called SQL	IF SQL%NOTFOUND THEN ..
Data Types.			
Database types	Definition	Declaring an explicit cursor.	DECLARE CURSOR employee_crsr SELECT empid, salary FROM emplo BEGIN .. OPEN employee_cursor LOOP FETCH employee_cursor INTO my_ my_salary; EXIT WHEN employee_crsr%NOTF ..do stuff.. ENDLOOP;
NUMBER	Used to store any number		Obtains next record from cursor. Ca
CHAR(N),	Used for storing text	Executing a cursor	into individual variables (as above) RECORD. TYPE t_emp IS RECORD (T_Salary t_empid number); my_emprec t_emp; CURSOR employee_crsr IS SELECT empid, salary FROM employee; OPEN employee_crsr; LOOP FETCH employee_crsr INTO my_emp EXIT WHEN employee_crsr%NOTF IF my_emprec.t_empid ..
VARCHAR2(N)	Oracle system date		
DATE	Stores large blocks of text		
LONG	Stores large blocks of binary data		
LONG RAW	Smaller binary data store		
ROWID	Used for row identifier		
MLSLABEL	Security label		
Non database types.	DEC, DECIMAL, REAL, DOUBLE- PRECISION, INTEGER, INT, SMALLIN NATURAL, POSITIVE, NUMERIC, BIN/ INTEGER, CHARACTER, VARCHAR, BOOLEAN, TABLE, RECORD	FETCH	
PLSQL Module types			
Procedure	A non-formal function that can accep parameters via value or reference. Si in form to a function.	Declaring an explicit cursor using a record.	
Function	A classical function that returns one Usually contains declaration, executi and exception sections.	Executing explicit cursor using record.	
Package	A library, consisting of a specification function/prototype signatures, and a with actual code. eg		
Trigger	Code attached to a table that fires on certain conditions.		
Module Sections or Blocks			
Variable Declaration	DECLARE employee-id employee.empid%TYPE,	Cursor Parameters.	DECLARE .. CURSOR employee_crsr(low_end VARCHAR2 high_end VARCHAR2) IS SELECT empid, salary FROM emplo

	CONSTANT number := 3.14, ratio RE BEGIN..		WHERE substr(lastname,1,1) BETW UPPER(low_end) AND UPPER(high_
Executable Section	.. BEGIN select * into my_employee where employee.emid = 42; END; ..	INVALID_CURSOR	Occurs when you attempt to c cursor that has not been open
Exception Handler.	END; EXCEPTIONS .. END;	CURSOR_ALREADY_OPEN	Occurs when you attempt to c cursor the second time
	Package Syntax	DUP_VAL_ON_INDEX	Unique or primary key constr violation
Specification	PACKAGE package_name IS [declarations of variables and types [specifications of cursors] [specifications of modules] END [package_name]; PACKAGE BODY package_name IS [declarations of variables and types [specification and SELECT statement cursors]	TOO_MANY_ROWS	More than one row was opbtai a single row subquery, or ano context when Oracle was expe one row.
Body	[specification and body of modules] [BEGIN executable statements] [EXCEPTION exception handlers] END [package_name];	ZERO_DIVIDE	An attempt to divide by zero.
		ROWTYPE_MISMATCH	An attempt to FETCH a cursor incompatible variable type.
		INVALID_NUMBER	An char type was referenced a number.
		OTHERS	Special catchall exception.
			Pragmas
		EXCEPTION_INIT	Tells the compiler to associate a particular error number with ar identifier you have declared as exception in your program.
		RESTRICT_REFERENCES	Tells the compiler the purity lev (freedom from side effects) of a packaged program.
General SQL*Plus script	.sql		Tells the PL/SQL runtime engin package-level data should not p between references to that dat Chapter 25, Tuning PL/SQL Applications for more informati
Testing script	.tst		
Stored procedure	.sp		
Stored function	.sf	SERIALLY_REUSABLE	
Stored package body	spb		
Stored package specification	.sps		

Filename Extensions

Implicit cursor attributes.

%NOTFOUND	True if fetch did not return row.
%ROWCOUNT	Number of rows processed by this cursor
%FOUND	Opposite of %NOTFOUND
%ISOPEN	If currently open for processing then true.

Transaction processing

Same Options as SQL	COMMIT, ROLLBACK, SAVEPOINT
Transaction begins at execution of first change of data.	Rollbacks go to last COMMIT or SAVE_POINT
DBMS_TRANSACTION	A package with functions for transaction control.

Exception Handling

Predefined	Relates to an oracle error. No need to invoke. Just catch. EXCEPTION WHEN NO_DATA_FOUN THEN DBMS_OUTPUT.PUT_LINE('No data found');
User defined.	Need to be declared, tested and handled in their respective blocks. DECLARE My_salary_null EXCEPTION; .. EBGIN.. IF my_emp_record.salary IS NULL THEN RAISE my_salary_null; END IF; EXCEPTION.. WHEN my_salary_null THEN DBMS_OUTPUT.PUT_LINE('Salary column was null for employee'); END

Pragmas. Associate a predefined error with a
exception handler. eg to have
my_salary_null catch Oracle error -1400
DECLARE
PRAGMA EXCEPTION INIT(my_salary_null,
-1400);