Summary of Predefined PL/SQL Exceptions

An internal exception is raised automatically if your PL/SQL program violates an Oracle rule or exceeds a system-dependent limit. PL/SQL predefines some common Oracle errors as exceptions. For example, PL/SQL raises the predefined exception NO_DATA_FOUND if a SELECT INTO statement returns no rows.

You can use the pragma EXCEPTION_INIT to associate exception names with other Oracle error codes that you can anticipate. To handle unexpected Oracle errors, you can use the OTHERS handler. Within this handler, you can call the functions SQLCODE and SQLERRM to return the Oracle error code and message text. Once you know the error code, you can use it with pragma EXCEPTION_INIT and write a handler specifically for that error.

PL/SQL declares predefined exceptions globally in package STANDARD. You need not declare them yourself. You can write handlers for predefined exceptions using the names in the following list:

Exception	Oracle Error	SQLCODE Value
ACCESS_INTO_NULL	ORA-06530	-6530
CASE_NOT_FOUND	ORA-06592	-6592
COLLECTION_IS_NULL	ORA-06531	-6531
CURSOR_ALREADY_OPEN	ORA-06511	-6511
DUP_VAL_ON_INDEX	ORA-00001	-1
INVALID_CURSOR	ORA-01001	-1001
INVALID_NUMBER	ORA-01722	-1722
LOGIN_DENIED	ORA-01017	-1017
NO_DATA_FOUND	ORA-01403	+100
NOT_LOGGED_ON	ORA-01012	-1012
PROGRAM_ERROR	ORA-06501	-6501
ROWTYPE_MISMATCH	ORA-06504	-6504

Exception	Oracle Error	SQLCODE Value
SELF_IS_NULL	ORA-30625	-30625
STORAGE_ERROR	ORA-06500	-6500
SUBSCRIPT_BEYOND_COUNT	ORA-06533	-6533
SUBSCRIPT_OUTSIDE_LIMIT	ORA-06532	-6532
SYS_INVALID_ROWID	ORA-01410	-1410
TIMEOUT_ON_RESOURCE	ORA-00051	-51
TOO_MANY_ROWS	ORA-01422	-1422
VALUE_ERROR	ORA-06502	-6502
ZERO_DIVIDE	ORA-01476	-1476

Brief descriptions of the predefined exceptions follow:

Exception	Raised when ...
ACCESS_INTO_NULL	A program attempts to assign values to the attributes of an uninitialized object.
CASE_NOT_FOUND	None of the choices in the WHEN clauses of a CASE statement is selected, and there is no ELSE clause.
COLLECTION_IS_NULL	A program attempts to apply collection methods other than EXISTS to an uninitialized nested table or varray, or the program attempts to assign values to the elements of an uninitialized nested table or varray.
CURSOR_ALREADY_OPEN	A program attempts to open an already open cursor. A cursor must be closed before it can be reopened. A cursor FOR loop automatically opens the cursor to which it refers, so your program cannot open that cursor inside the loop.
DUP_VAL_ON_INDEX	A program attempts to store duplicate values in a database column that is constrained by a unique index.
INVALID_CURSOR	A program attempts a cursor operation that is not allowed, such as closing an unopened cursor.
INVALID_NUMBER	In a SQL statement, the conversion of a character string into a number fails because the string does not represent a valid number. (In procedural statements, VALUE_ERROR is raised.) This exception is also raised when the LIMIT-

Exception	Raised when ...
	clause expression in a bulk FETCH statement does not evaluate to a positive number.
LOGIN_DENIED	A program attempts to log on to Oracle with an invalid username or password.
NO_DATA_FOUND	A SELECT INTO statement returns no rows, or your program references a deleted element in a nested table or an uninitialized element in an index-by table. Because this exception is used internally by some SQL functions to signal that they are finished, you should not rely on this exception being propagated if you raise it within a function that is called as part of a query.
NOT_LOGGED_ON	A program issues a database call without being connected to Oracle.
PROGRAM_ERROR	PL/SQL has an internal problem.
ROWTYPE_MISMATCH	The host cursor variable and PL/SQL cursor variable involved in an assignment have incompatible return types. For example, when an open host cursor variable is passed to a stored subprogram, the return types of the actual and formal parameters must be compatible.
SELF_IS_NULL	A program attempts to call a MEMBER method, but the instance of the object type has not been initialized. The built-in parameter SELF points to the object, and is always the first parameter passed to a MEMBER method.
STORAGE_ERROR	PL/SQL runs out of memory or memory has been corrupted.
SUBSCRIPT_BEYOND_COUNT	A program references a nested table or varray element using an index number larger than the number of elements in the collection.
SUBSCRIPT_OUTSIDE_LIMIT	A program references a nested table or varray element using an index number (-1 for example) that is outside the legal range.
SYS_INVALID_ROWID	The conversion of a character string into a universal rowid fails because the character string does not represent a valid rowid.

Exception	Raised when ...
TIMEOUT_ON_RESOURCE	A time-out occurs while Oracle is waiting for a resource.
TOO_MANY_ROWS	A SELECT INTO statement returns more than one row.
VALUE_ERROR	An arithmetic, conversion, truncation, or size-constraint error occurs. For example, when your program selects a column value into a character variable, if the value is longer than the declared length of the variable, PL/SQL aborts the assignment and raises VALUE_ERROR. In procedural statements, VALUE_ERROR is raised if the conversion of a character string into a number fails. (In SQL statements, INVALID_NUMBER is raised.)
ZERO_DIVIDE	A program attempts to divide a number by zero.