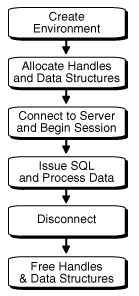
Oracle OCI

# Basic OCI Program Flow

Create Environment

Allocate Habndle and data Structures

Connect to server and begin Session

Issue SQL and Process Data

Disconnect

Free Handle and Data Structures

# Connect

cmd\_check\_connection -> testClient(conn\_string, user, pw,version,instance);

testClient -> Connect(p,chk,NULL)

Connect ->

rc = OCIEnvCreate((OCIEnv \*\*) &(p->pconn->envhp),

(ub4)OCI\_THREADED|OCI\_OBJECT, (dvoid \*)0,

(dvoid \* (\*)(dvoid \*, size\_t)) 0,

(dvoid \* (\*)(dvoid \*, dvoid \*, size\_t))0,

(void (\*)(dvoid \*, dvoid \*)) 0,

(size\_t) 0,

(dvoid \*\*) 0 )

similarly for

OCI\_HTYPE\_SERVER

OCI\_HTYPE\_SVCCTX

OCIServerAttach( p->pconn->srvhp, p->pconn->errhp, (OraText \*)p->pconn->address, strlen((char \*)p->pconn->address), 0)

OCIAttrSet( (dvoid \*) p->pconn->svchp, OCI\_HTYPE\_SVCCTX, (dvoid \*)p->pconn->srvhp, (ub4) 0, OCI\_ATTR\_SERVER, (OCIError \*) p->pconn->errhp)

OCISessionBegin ( p->pconn->svchp, p->pconn->errhp, p->pconn->authp, OCI\_CRED\_RDBMS, (ub4) nMode/\*OCI\_DEFAULT\*/)

# Run Query

OCIHandleAlloc( (dvoid \*) p->pconn->envhp, (dvoid \*\*) &stmthp, OCI\_HTYPE\_STMT, (size\_t) 0, (dvoid \*\*) 0)

/\* Executing query. \*/

(OCIStmtPrepare(stmthp, p->pconn->errhp, qdef->QStr, (ub4) strlen((char \*) qdef->QStr), (ub4) OCI\_NTV\_SYNTAX, (ub4) OCI\_DEFAULT))

/\* set attribute for prefetch \*/

OCIAttrSet( (dvoid \*) stmthp, OCI\_HTYPE\_STMT, &prefetch, (ub4) 0, OCI\_ATTR\_PREFETCH\_ROWS, p->pconn->errhp)

/\* execute statement \*/

OCIStmtExecute (p->pconn->svchp, stmthp, p->pconn->errhp, (ub4)0,(ub4)0, (OCISnapshot \*)0, (OCISnapshot \*)0, OCI\_DEFAULT )

/\* get select list attributes \*/

/\* Get the number of columns in the query \*/

OCIAttrGet(stmthp, OCI\_HTYPE\_STMT, &numcols, 0, OCI\_ATTR\_PARAM\_COUNT, p->pconn->errhp)

/\* get attributes for all columns \*/

OCIParamGet(stmthp, OCI\_HTYPE\_STMT, p->pconn->errhp, &colhd, i)

/\* get name of column i \*/

OCIAttrGet(colhd, OCI\_DTYPE\_PARAM, (dvoid \*) &ostr, (ub4 \*) &osize, OCI\_ATTR\_NAME, p->pconn->errhp)

/\* get data-type of column i \*/

OCIAttrGet(colhd, OCI\_DTYPE\_PARAM, &pColdesc[i-1].dtype, 0, OCI\_ATTR\_DATA\_TYPE, p->pconn->errhp)

/\* get data-length of column i \*/

OCIAttrGet(colhd, OCI\_DTYPE\_PARAM, &pColdesc[i-1].dsize, 0, OCI\_ATTR\_DATA\_SIZE, p->pconn->errhp)

/\* allocate space for the result and define output variables \*/

DefineByPos(stmthp, &pColdesc[i-1], i, p, c, query\_start)

/\* Fetch and write results to PDS \*/

OCIStmtFetch(stmthp,p->pconn->errhp,1,OCI\_FETCH\_NEXT,OCI\_DEFAULT)

# Disconnect

OCISessionEnd(p->pconn->svchp, p->pconn->errhp, p->pconn->authp, (ub4) 0)

OCIServerDetach(p->pconn->srvhp, p->pconn->errhp, (ub4) OCI\_DEFAULT)