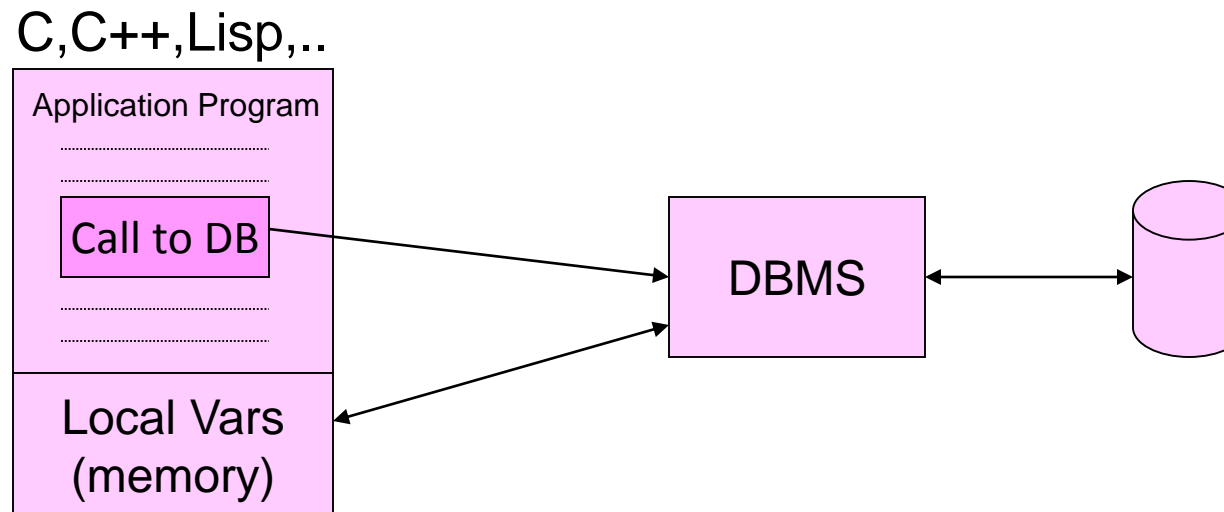


DBMS Languages

DBMS have a facility for embedding DDL & DML (sub-languages) in a High-Level Language (COBOL, C, C++ or Java), which in this case is considered a **host language**.



SQL(Structured Query Language) query

- Basically two types of SQL queries are available for database operations :
 - DDL (Data Definition Language)
 - DML (Data Manipulation Language)
- *To execute queries, a database should be created first.*

SQL query (DDL)

- DDL(Data Definition Language): This type of database queries are used for defining the structure of the database elements such as table. DDL includes:
 - create
 - alter
 - truncate
 - drop

SQL query (DML)

- DML(Data Manipulation Language): This type of database queries are used for performing various operations on the data. DML includes:
 - insert
 - update (requires condition)
 - delete (requires condition)
 - show/select

SQL query (DDL) example

- **create query:** This is used for creating table in database
 - Example:
`create table employee`
`(`
`emp_id number(10),`
`emp_name char(10),`
`payment number(10,2)`
`);`
- **alter query:** This is used for changing table structure such as increasing or decreasing or modifying column of a table
 - Example: `alter table employee add address varchar(20);`
- **truncate query:** This is used for removing all data from a table
 - Example: `truncate table employee;`
- **drop query:** This is used for removing table from database
 - Example: `drop table employee;`

SQL query (DML) example

- **insert query:** This is used for inserting new data into the table. For every new values into the table each time a insert query is needed.

- Example:

```
insert into employee values(100, 'Rahim', 1000, 'Dhaka');
```

```
insert into employee values(200, 'Karim', 1500, 'Sylhet');
```

```
insert into employee values(300, 'Hasan', 2000, 'Chittagong');
```

```
insert into employee values(500, 'Abir', 1200, 'Noakhali');
```

- **update query:** This is used for updating the existing data of a table. It requires conditions.

- Example:

```
update employee set payment = 10000 where emp_name = 'Rahim';
```

- **delete query:** This is used for removing data from a table using some specific conditions.

- Example:

```
delete from employee where emp_name = 'Abir';
```

- **select/show query:** This is used for showing data from a table.

- Example:

```
select * from employee;
```