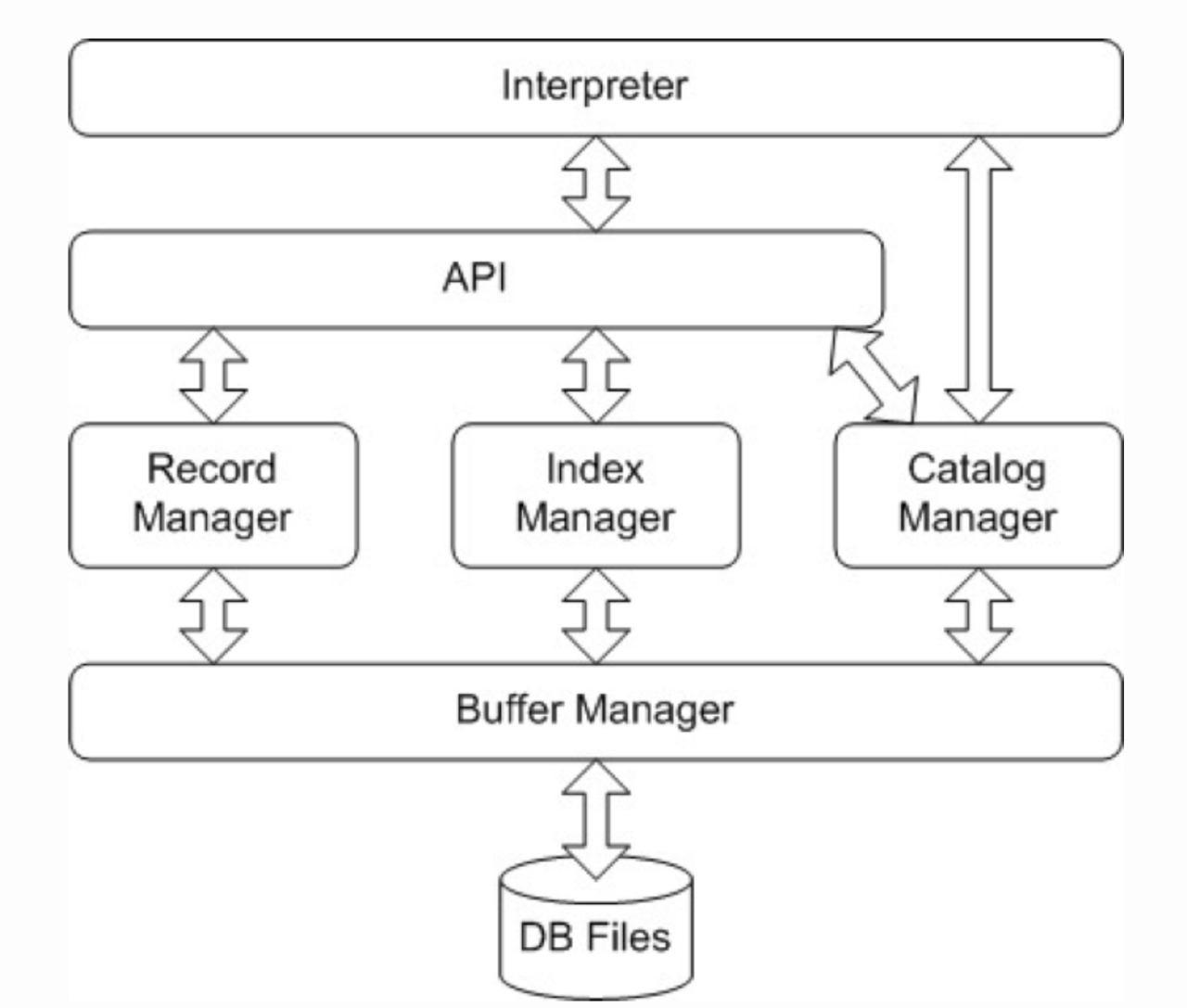
This is an implementation of a small DBMS, called mini-SQL, the structure of the project is as followed:



Some of the running results are as followed:

1. create table

D:\MiniSQL_T\mini-sql.exe

```
minisql> create table student2 (
       > id int,
       > name char(12) unique,
       > score float,
       > primary key (id)
       > );
statement 1: executed successfully, time used: 0.0170146s
```

2. Insert

```
minisql> insert into student2 values(1080109991,'name9991',69);
statement 1: executed successfully, time used: 0.0548933s
minisql> insert into student2 values(1080109992,'name9992',50.5);
statement 1: executed successfully, time used: 0.0399902s
minisql> insert into student2 values(1080109993,'name9993',67.5);
statement 1: executed successfully, time used: 0.0378978s
minisql> insert into student2 values(1080109994,'name9994',97.5);
statement 1: executed successfully, time used: 0.0439189s
minisql> insert into student2 values(1080109995,'name9995',59.5);
statement 1: executed successfully, time used: 0.0388948s
minisql> insert into student2 values(1080109996,'name9996',65.5);
statement 1: executed successfully, time used: 0.0379352s
minisql> insert into student2 values(1080109997,'name9997',61);
statement 1: executed successfully, time used: 0.0967426s
minisql> insert into student2 values(1080109998,'name9998',84.5);
statement 1: executed successfully, time used: 0.0403548s
minisql> insert into student2 values(1080109999,'name9999',69.5);
statement 1: executed successfully, time used: 0.0399315s
minisql> insert into student2 values(1080110000,'name10000',80.5);
statement 1: executed successfully, time used: 0.0359288s
```

3. select (without index)

```
minisql> select * from student2 where id = 1080100245;
statement 1:
+-----------+--------+----------+
|id         |name    |score     |
+-----------+--------+----------+
|1080100245 |name245 |62.500000 |
+-----------+--------+----------+
1 row returned
executed successfully, time used: 0.0468736s
```

```
minisql> select * from student2 where name = 'name245';
statement 1:
+-----------+--------+----------+
|id         |name    |score     |
+-----------+--------+----------+
|1080100245 |name245 |62.500000 |
+-----------+--------+----------+
1 row returned
executed successfully, time used: 0.0378978s
```

4. index with its performance

```
minisql> create index stuidx on student2 ( name );
statement 1: executed successfully, time used: 2.26624s
```

```
minisql> select * from student2 where name = 'name245';
statement 1:
+-----------+--------+----------+
|id         |name    |score     |
+-----------+--------+----------+
|1080100245 |name245 |62.500000 |
+-----------+--------+----------+
1 row returned
executed successfully, time used: 0.00782s
```

5. delete

```
minisql> delete from student2 where score = 98.5;
statement 1: executed successfully, time used: 0.0568477s
minisql> select * from student2 where score = 98.5;
statement 1:
+---+-----+------+
|id |name |score |
+---+-----+------+
0 row returned
```

6. drop

```
minisql> drop table student2;
statement 1: executed successfully, time used: 0.0139553s
```