

## COMPSCI 751 – Lab 10

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**Use explain in PostgreSQL systems using the application of file scan, index scan, hash join, block nested loop join, and merge join.**

```
explain select id, name, tot_cred from student where dept_name = 'Comp. Sci.';
```

```
explain analyze select id, name, tot_cred from student where dept_name = 'Comp. Sci.';
```

```
explain (analyze, buffers) select id, name, tot_cred from student where dept_name = 'Comp. Sci.';
```

```
explain (format json) select id, name, tot_cred from student where dept_name = 'Comp. Sci.';
```

```
explain select id, name, tot_cred from student where dept_name = 'Comp. Sci.';
```

```
create index on student using btree(dept_name);
```

```
explain select id, name, tot_cred from student where dept_name = 'Comp. Sci.';
```

```
explain select * from student natural join takes;
```

```
explain select * from student as r natural join takes
```

```
where r.tot_cred < (select avg(tot_cred) from student);
```

```
set enable_hashjoin = false;
```

```
explain select * from student natural join takes;
```

```
explain select * from student as r natural join takes
```

```
where r.tot_cred < (select avg(tot_cred) from student);
```