

```
people('Exercise5_DataBase.mat', 'list');
```

```
Name : Jack      Age : 18
Name : Amy       Age : 20
Name : Tom       Age : 21
Name : Michael   Age : 17
Name : Linda     Age : 18
Name : Ryan      Age : 19
Name : Jimmy     Age : 18
Name : Betty     Age : 20
Name : Brook     Age : 21
Name : Alan      Age : 23
```

```
people("Exercise5_DataBase.mat","insert",'Zhiying Li',20);
people('Exercise5_DataBase.mat', 'list');
```

```
Name : Jack      Age : 18
Name : Amy       Age : 20
Name : Tom       Age : 21
Name : Michael   Age : 17
Name : Linda     Age : 18
Name : Ryan      Age : 19
Name : Jimmy     Age : 18
Name : Betty     Age : 20
Name : Brook     Age : 21
Name : Alan      Age : 23
Name : Zhiying Li Age : 20
```

```
people("Exercise5_DataBase.mat",'remove','Tom',21);
people('Exercise5_DataBase.mat', 'list');
```

```
Name : Jack      Age : 18
Name : Amy       Age : 20
Name : Michael   Age : 17
Name : Linda     Age : 18
Name : Ryan      Age : 19
Name : Jimmy     Age : 18
Name : Betty     Age : 20
Name : Brook     Age : 21
Name : Alan      Age : 23
Name : Zhiying Li Age : 20
```

```
people("Exercise5_DataBase.mat","insert",'Joe',24, 'Ella',28);
people('Exercise5_DataBase.mat', 'list');
```

```
Name : Jack      Age : 18
Name : Amy       Age : 20
Name : Michael   Age : 17
Name : Linda     Age : 18
Name : Ryan      Age : 19
Name : Jimmy     Age : 18
Name : Betty     Age : 20
Name : Brook     Age : 21
Name : Alan      Age : 23
Name : Zhiying Li Age : 20
Name : Joe       Age : 24
Name : Ella      Age : 28
```

```
people("Exercise5_DataBase.mat","reset")
people('Exercise5_DataBase.mat', 'list');
```

```

function people(db_file, varargin)

if ~exist(db_file, 'file')
    student = struct('Name', {}, 'Age', {});
else
    load(db_file);
end
mode = varargin{1};

switch mode

    case 'reset'
        student = struct('name', {}, 'age', {});
        save(db_file, 'student');

    case 'list'
        for i = 1 : numel(student)
            disp(['Name : ' student(i).name '      Age : ' num2str(student(i).age)]);
        end

    case 'insert'
        for j = 2:2:numel(varargin)
            insert_name = varargin{j};
            insert_age = varargin{j+1};
            insert_information = struct('name', insert_name, 'age', insert_age);
            student(end+1) = insert_information;
        end
        save(db_file, 'student');

    case 'remove'
        for k = 2:2:numel(varargin)
            remove_name = varargin{k};
            remove_age = varargin{k+1};
            remove_idx = find(strcmp({student.name},
remove_name)&[student.age]==remove_age);
            if ~isempty(remove_idx)
                student(remove_idx) = [];
            end
        end
        save(db_file, 'student');
    end
end
end

```