

12. Data Science – Machine Learning – Pickling and Unpickling

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- ✓ Based on requirement we can write total state of object to the file and we can read total object information from the file.

1. Pickling

- ✓ The process of writing state of object to the file is called as **pickling**.
- ✓ We can implement pickling and unpickling by using python **pickle module**
- ✓ We can do pickling by using `dump(object, file)` predefined function in pickle module

- `pickle.dump(object, file)`

2. Unpickling

- ✓ The process of reading state of an object from the file is called **unpickling**.
- ✓ We can do unpickling by using `load(file)` predefined function in pickle module

- `obj = pickle.load(file)`

Program Name Pickling and unpickling example
demo1.py

```
import pickle

class Employee:
    def __init__(self, eno, ename, esal):
        self.eno = eno
        self.ename = ename
        self.esal = esal

    def display(self):
        print("Number is:", self.eno)
        print("Name is:", self.ename)
        print("Salary is:", self.esal)

with open("emp.dat", "wb") as f:
    e = Employee(100, "Daniel", 1000)
    pickle.dump(e, f)
    print("Pickling of Employee Object completed...\n")

with open("emp.dat", "rb") as f:
    obj = pickle.load(f)
    print("Printing Employee Information after unpickling")
    obj.display()
```

Output

Pickling of Employee Object completed...

Printing Employee Information after unpickling

Number is: 100

Name is: Daniel

Salary is: 1000