

## ET-580 - Polymorphism & Virtual Functions - Homework

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### Reading

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#### Chapter 16 Templates

### Implementation

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1. Implement the following:

Given the following main function and example output:

```
int main() {  
    cout << endl;  
  
    Person **p = new Person*[4];  
    p[0] = new Student("Jake", 1010);  
    p[1] = new Student("Kim", 4364);  
    p[2] = new Employee("Charles", "Penn. Tester");  
    p[3] = new Employee("Sara", "Web Developer");  
  
    for(int i=0; i<5; ++i) {  
        p[i]->output();  
    }  
  
    cout << endl;  
    return 0;  
}
```

#### Example Output

```
Jake 1010  
Kim 4364  
Charles Penn. Tester  
Sara Web Developer
```

- a. Implement the abstract class *Person* and derived classes *Student* and *Employee*.

*Person* has a data member *name*.  
*Student* has a data member *id*.  
*Employee* has a data member *job*.

- b. Your class implementation should ensure that the output matches the polymorphic example output without changing the main function.