|  |  |  |
| --- | --- | --- |
| Department  Int id  String name  Teacher\* dean  Vector<Teacher\*> teachers  Vector<Staff\*> staff  Vector<Teacher\*> getTeacher()  Vector<Staff\*> getStaff()  String getName()  Int getDeanID()  AddTeacher(teacher: Teacher\*)  AddStaff(staffMember: Staff\*)  SetDean(teacher: Teacher\*)  toString(): string  saveData(ofs: ofstream) |  | (interface) Payroll  computePayroll() |



|  |
| --- |
| Person  Int ID  String fullName  String gender  Int age  String address  String getName()  Int getID()  String getCategory()  String toString()  Bool Equal(person: Person)  Save(0fs: ofstream)  Load(ifs: ifstream) |



|  |  |
| --- | --- |
| Teacher  String degree  String specialty  Bool fulltime  String getCategory()  String toString()  Double getDegreeRate()  Save(ofs: ofstream)  Load(ifs: ifstream) | Staff  String duty  Int workload  String getCategory()  String toString()  Double computePayRoll()  Save(ofs:ofstream)  Load(ifs: ifstream) |



|  |  |
| --- | --- |
| FullTimeTeacher  Double computePayRoll()  Save(ofs: ofstream)  Load(ifs: ifstream) | PartTimeTeacher  Int hoursWorked  Double computePayRoll()  String toString()  Save(ofs: ofstream)  Load(ifs: ifstream) |

Relationships:

* “Person” is a class which has the subclasses “Teacher” and “Staff” (public Person)
* “FullTimeTeacher” and “PartTimeTeacher” are both subclasses of the subclass “Teacher” (public Teacher)
* “Department” is a class that takes the information from the classes and subclasses “Person”, “Teacher” and “Staff” using pointers.
* “Payroll” is an interface (using the type class) only containing the function computePayRoll(). This function uses information stored in the class “Department” . The class “Person” is only a subclass of “Payroll” so that later classes can override the virtual function that it contains.