Create a project called `lab9` (if using Visual Studio), and copy (one of) your team members' source file `lab8.cpp` into `lab9.cpp`. The `UMLPerson.pdf` inheritance hierarchy diagram is also provided on Blackboard for your reference.

Your team will make the following modifications to `lab9.cpp`:

- Add a `payAdvice()` function as a pure virtual function in the `PayKind` class. This function returns an employee's gross pay (before deductions) for a 2-week pay period. The return type of `payAdvice()` is `double`.
- Override the definition of the `payAdvice()` virtual function in the classes `Salaried`, `Hourly`, and `PerCourse`. The computation of gross pay is as follows:
    - For a `Salaried` employee, divide the annual salary by 26 pay periods per year.
    - For an `Hourly` employee, multiply the hourly rate by 40 hours per pay period (i.e., 20 hours per week).
    - For a `PerCourse` employee, divide the fee per course by 7 pay periods per semester (for a 14-week semester); you may assume that the employee is teaching only one course per semester.
- Add code to your `main` function to display the pay advice for `Grader g1`, `NTT n1`, and the `Adjunct` instance that you defined in your implementation of Lab 8.
- After you've completed and successfully tested the three tasks above, add the following code at the end of your `main` function:

```
vector<NTT*> nv;
nv.push_back(&n1);
cout << 0 << ":\n" << *nv[0];
cout << "Pay Advice is " << nv[0]->payAdvice() << endl << endl;

vector<UMLPerson*> uv;
uv.push_back(&s1);
uv.push_back(&s2);
uv.push_back(&g1);
uv.push_back(&n1);
for (int i = 0; i < 4; i++) {
    cout << i << ":\n" << *uv[i] << endl;
}
cout << endl;
```

Be prepared to explain the behavior of this code.

- What do you think would be necessary to improve the output of the `for` loop?
  (**Hint**: Download the file `Animal_with-virtual.cpp` from the Lab 9 assignment page on Blackboard, and look at how the `stringify` virtual function is used in implementations of the insertion operators for the Animal class hierarchy.)
- Also, explain what happens if you change `NTT*` to `UMLPerson*` in the declaration of the vector `nv`.

When finished, one member of your group should upload your completed `lab9.cpp` source file to Blackboard.