

Main class:

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//Raymond Guevara Lozano
//CECS 282 Project - part 2
#include <iostream>
#include <vector>
#include <typeinfo>
#include <typeindex>
#include "Employee.cpp"
#include "Staff.cpp"
#include "Education.cpp"
#include "Faculty.cpp"
#include "Partime.cpp"

int main(){
    std::vector<Employee *> e;

    e.push_back(new Staff("Allen", "Paita", "123", M, "2/23/1959", 50.00));
    e.push_back(new Faculty("Andrade", "Christopher", "623", M,
"5/22/1980", AS, Education("MS", "Physical Education", 0)));
    e.push_back(new Partime("Aldaco", "Marque", "945", M, "11/24/1988",
20.00, 35));
    e.push_back(new Staff("Rios", "Enrique", "789", M, "6/2/70", 40.00));
    e.push_back(new Faculty("Johnson", "Anne", "243", F, "4/27/1962", FU,
Education("PhD", "Engineering", 3)));
    e.push_back(new Staff("Zapata", "Steven", "456", F, "7/12/1964",
35.00));
    e.push_back(new Partime("Guzman", "Augusto", "455", F, "8/10/1977",
35.00, 30));
    e.push_back(new Faculty("Bouris", "William", "791", F, "3/14/1975", AO,
Education("PhD", "English", 1)));
    e.push_back(new Partime("Depirro", "Martin", "678", F, "9/15/1987",
30.00, 15));

    int i {1};
    double parTimeSalary{0};
    double totalMonSal{0};
    for (Employee* &employee : e){
        std::cout << i << ".";
        employee->putData();
        std::cout << std::endl;
```

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        ++i;
        if (typeid(Partime) == typeid(*employee))
        {
            parTimeSalary += employee->monthlyEarnings();
        }
        totalMonSal += employee->monthlyEarnings();
    }
    std::cout << "Total monthly salary for all part-time staff: $" <<
parTimeSalary << std::endl;
    std::cout << "Total monthly salary for all employees: $" << totalMonSal
<< std::endl;
    for (Employee* &employee : e){
        delete employee;
    }

    return 0;
}

```

Runtime output:

1.ID Employee number: 123

Employee Name: Paita Allen

Birth Date: 2/23/1959

Full Time

Monthly Salary: 8000

2.ID Employee number: 623

Employee Name: Christopher Andrade

Birth Date: 5/22/1980

Associate Professor

Monthly Salary: 5000

3.ID Employee number: 945

Employee Name: Marque Aldaco

Birth Date: 11/24/1988

Hours Worked Per Month: 140

Monthly Salary: 2800

4.ID Employee number: 789

Employee Name: Enrique Rios

Birth Date: 6/2/70

Full Time

Monthly Salary: 6400

5.ID Employee number: 243

Employee Name: Anne Johnson

Birth Date: 4/27/1962

Full Professor

Monthly Salary: 7000

6.ID Employee number: 456

Employee Name: Steven Zapata

Birth Date: 7/12/1964

Full Time

Monthly Salary: 5600

7.ID Employee number: 455

Employee Name: Augusto Guzman

Birth Date: 8/10/1977

Hours Worked Per Month: 120

Monthly Salary: 4200

8.ID Employee number: 791

Employee Name: William Bouris

Birth Date: 3/14/1975

Associate Professor

Monthly Salary: 6000

9.ID Employee number: 678

Employee Name: Martin Depirro

Birth Date: 9/15/1987

Hours Worked Per Month: 60

Monthly Salary: 1800

Total monthly salary for all part-time staff: \$8800

Total monthly salary for all employees: \$46800