**Homework 4 컴퓨터공학부 202211390 최준원**

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| Q1 |
| Source Code |
| <Employee.h>  #ifndef EMPLOYEE\_H  #define EMPLOYEE\_H  #include <iostream>  #include <string>  using namespace std;  class Employee {  protected:  string FName;  char initial;  string LName;  public:  virtual void print() = 0;  };  #endif  <SalaryEmployee.h>  #ifndef SALARYEMPLOYEE\_H  #define SALARYEMPLOYEE\_H  #include "Employee.h"  class SalaryEmployee : public Employee{  protected:  double fixedSalary; //Fixed Salary per month  public:  SalaryEmployee(string f, char i, string l, double fs);  ~SalaryEmployee();  void print();  };  #endif  <SalaryEmployee.cpp>  #include "SalaryEmployee.h"  SalaryEmployee::SalaryEmployee(string f, char i, string l, double fs)  {  FName = f;  initial = i;  LName = l;  fixedSalary = fs;  }  SalaryEmployee::~SalaryEmployee()  {  }  void SalaryEmployee::print()  {  cout << fixed;  cout.precision(0);  cout << "Salary Employee:" << endl;  cout << FName << " " << initial << ". " << LName << endl;  cout << "Salary: " << fixedSalary << endl;  cout << "Payment: " << fixedSalary << endl;  cout << "\n";  }  <HourlyEmployee.h>  #ifndef HOURLYEMPLOYEE\_H  #define HOURLYEMPLOYEE\_H  #include "Employee.h"  class HourlyEmployee : public Employee{  protected:  int hour; //Hours worked per month  double fixedRate; //Fixed Rate per hour  public:  HourlyEmployee(string f, char i, string l, int h, double fr);  ~HourlyEmployee();  void print();  };  #endif  <HourlyEmployee.cpp>  #include "HourlyEmployee.h"  HourlyEmployee::HourlyEmployee(string f, char i, string l, int h, double fr)  {  FName = f;  initial = i;  LName = l;  hour = h;  fixedRate = fr;  }  HourlyEmployee::~HourlyEmployee()  {  }  void HourlyEmployee::print()  {  cout << fixed;  cout.precision(0);  cout << "Hourly Employee:" << endl;  cout << FName << " " << initial << ". " << LName << endl;  cout << "Hours worked: " << hour << endl;  cout << "Rate: " << fixedRate << endl;  cout << "Payment: " << hour \* fixedRate << endl;  cout << "\n";  }  <main.cpp>  #include "SalaryEmployee.h"  #include "HourlyEmployee.h"  int main() {  // Instantiation of Employee1 (first name, initial, last name, salary)  SalaryEmployee employee1("John", 'A', "Pape", 2500);  employee1.print();  // Instantiation of Employee2 (first name, initial, last name, hours, rate)  HourlyEmployee employee2("Lucie", 'C', "Bush", 70, 20.0);  employee2.print();  // Add your test code here:  SalaryEmployee employee3("Sean", 'P', "Storey", 4500);  employee3.print();  HourlyEmployee employee4("Phillip", 'C', "McGraw", 60, 100.0);  employee4.print();  return 0;  } |
| Screenshot |
| 텍스트이(가) 표시된 사진  자동 생성된 설명 |

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| Q2 |
| Source Code |
| <Employee.h>  #ifndef EMPLOYEE\_H  #define EMPLOYEE\_H  #include <iostream>  #include <string>  using namespace std;  class Employee {  protected:  string FName;  char initial;  string LName;  public:  virtual void print() = 0;  };  #endif  <SalaryType.h>  #ifndef SALARYTYPE\_H  #define SALARYTYPE\_H  #include "Employee.h"  class SalaryHourlyEmployee : virtual public Employee{  protected:  double fixedSalary; //Fixed Salary per month  int hour; //Hours worked per month  double fixedRate; //Fixed Rate per hour  public:  SalaryHourlyEmployee(string f, char i, string l, double s,int h, double fr);  ~SalaryHourlyEmployee();  void Employee::print();  };  #endif  <SalaryEmployee.h>  #ifndef SALARYEMPLOYEE\_H  #define SALARYEMPLOYEE\_H  #include "SalaryType.h"  class SalaryEmployee : virtual public SalaryType{  protected:  double fixedSalary; //Fixed Salary per month  public:  SalaryEmployee(string f, char i, string l, double fs);  ~SalaryEmployee();  void Employee::print();  };  #endif  <SalaryEmployee.cpp>  #include "SalaryEmployee.h"  SalaryEmployee::SalaryEmployee(string f, char i, string l, double fs)  :fixedSalary(fs)  {  FName = f;  initial = i;  LName = l;  }  SalaryEmployee::~SalaryEmployee()  {  }  void SalaryEmployee::print()  {  cout << fixed;  cout.precision(0);  cout << FName << " " << initial << ". " << LName << endl;  cout << "Salary Employee" << endl;  cout << "Salary: " << fixedSalary << endl;  cout << "Total Payment: " << fixedSalary << endl;  cout << "\n";  }  <HourlyType.h>  #ifndef HOURLYTYPE\_H  #define HOURLYTYPE\_H  #include "Employee.h"  using namespace std;  class HourlyType : virtual public Employee{  public:  virtual void Employee::print() = 0;  };  #endif  <HourlyEmployee.h>  #ifndef HOURLYEMPLOYEE\_H  #define HOURLYEMPLOYEE\_H  #include "HourlyType.h"  class HourlyEmployee : virtual public HourlyType{  protected:  int hour; //Hours worked per month  double fixedRate; //Fixed Rate per hour  public:  HourlyEmployee(string f, char i, string l, int h, double fr);  ~HourlyEmployee();  void Employee::print();  };  #endif  <HourlyEmployee.cpp>  #include "HourlyEmployee.h"  HourlyEmployee::HourlyEmployee(string f, char i, string l, int h, double fr)  :hour(h), fixedRate(fr)  {  FName = f;  initial = i;  LName = l;  }  HourlyEmployee::~HourlyEmployee()  {  }  void HourlyEmployee::print()  {  cout << fixed;  cout.precision(0);  cout << FName << " " << initial << ". " << LName << endl;  cout << "Hourly Employee" << endl;  cout << "Hours worked: " << hour << endl;  cout << "Rate: " << fixedRate << endl;  cout << "Payment: " << hour \* fixedRate << endl;  cout << "\n";  }  <SalaryHourlyEmployee.h>  #ifndef SALARYHOURLYEMPLOYEE\_H  #define SALARYHOURLYEMPLOYEE\_H  #include "Employee.h"  class SalaryHourlyEmployee : virtual public Employee{  protected:  double fixedSalary; //Fixed Salary per month  int hour; //Hours worked per month  double fixedRate; //Fixed Rate per hour  public:  SalaryHourlyEmployee(string f, char i, string l, double s,int h, double fr);  ~SalaryHourlyEmployee();  void Employee::print();  };  #endif  <SalaryHourlyEmployee.cpp>  #include "SalaryHourlyEmployee.h"  SalaryHourlyEmployee::SalaryHourlyEmployee(string f, char i, string l, double s, int h, double fr)  :fixedSalary(s), hour(h), fixedRate(fr)  {  FName = f;  initial = i;  LName = l;  }  SalaryHourlyEmployee::~SalaryHourlyEmployee()  {  }  void SalaryHourlyEmployee::print()  {  cout << fixed;  cout.precision(0);  cout << FName << " " << initial << ". " << LName << endl;  cout << "Salary Hourly Employee" << endl;  cout << "Salary: " << fixedSalary << endl;  cout << "Hours worked: " << hour << endl;  cout << "Rate: " << fixedRate << endl;  cout << "Total Payment: ";  if (hour > 180) {  cout << fixedSalary + (hour - 180) \* fixedRate << endl;  }  else {  cout << fixedSalary << endl;  }  cout << "\n";  }  <main.cpp>  #include "salaryEmployee.h"  #include "hourlyEmployee.h"  #include "salaryHourlyEmployee.h"  int main()  {  // Handling a salary employee (first name, initial, last name, salary)  SalaryEmployee john("John", 'A', "Pape", 2500);  john.print();  // Handling an hourly employee (first name, initial, last name, hours, rate)  HourlyEmployee lucie("Lucie", 'C', "Bush", 70, 20.0);  lucie.print();  // Handling a salary-hourly employee (first name, initial, last name, salary, hours, rate)  SalaryHourlyEmployee ann("Ann", 'A', "White", 3500, 230, 20.0);  ann.print();  // Add your test code here:  SalaryEmployee chris("Chris", 'P', "Bacon", 1000);  chris.print();  HourlyEmployee aunt("Aunt", 'T', "Annes", 170, 5.0);  aunt.print();    SalaryHourlyEmployee k("Kay", 'F', "Cie", 500, 720, 10.0);  k.print();  return 0;  } |
| Screenshot |
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