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| **2019년 11월 11일 실습보고서** |
| **7조 : 송재원, 조윤직,양석준, 박진영** |
| **실습자료1 : virtual 사용하여 ticket 클래스 제작** |
| **소스코드** |
| #include <iostream>  #include "Ticket.h"  #include "AdvanceTicket.h"  #include "TicketManager.h"  #include "GeneralTicket.h"  using namespace std;  int main()  {  cout << "c++ 7조 송재원, 조윤직, 양석준, 박진영입니다." << endl;  TicketManager\* manager = new TicketManager();  GeneralTicket\* t1 = new GeneralTicket(1, 200.0, true);  GeneralTicket\* t2 = new GeneralTicket(2, 800.0, false);  AdvanceTicket\* t3 = new AdvanceTicket(3, 1000.0, 11);  AdvanceTicket\* t4 = new AdvanceTicket(4, 2000.0, 4);  AdvanceTicket\* t5 = new AdvanceTicket(5, 1000.0, 1);  manager->Ticketing(\*t1);  manager->Ticketing(\*t2);  manager->Ticketing(\*t3);  manager->Ticketing(\*t4);  manager->Ticketing(\*t5);    manager->show();  return 0;  }  --------------------------------------------------------------------------------------------  #pragma once  class Ticket  {  private:  int number;  double price;  public:  Ticket();  Ticket(int number);  Ticket(int number, double price);  Ticket(const Ticket &copy);  int getNumber();  virtual double getPrice();  void setPrice(double price);  ~Ticket();  virtual void show();  };  -----------------------------------------------------------------------------------------------------------------------  #include "Ticket.h"  #include <iostream>  using namespace std;  Ticket::Ticket()  {  }  Ticket::Ticket(int number):number(number)  {  }  Ticket::Ticket(int number, double price) :  number(number), price(price)  {  }  Ticket::Ticket(const Ticket & copy):  number(copy.number), price(copy.price)  {  cout << "복사생성자" << endl;  }  int Ticket::getNumber()  {  return this->number;  }  double Ticket::getPrice()  {  return this->price;  }  void Ticket::setPrice(double price)  {  this->price = price;  }  void Ticket::show()  {  cout << "티켓번호 : " << this->getNumber() << endl << "티켓가격 : " << this->getPrice() << endl;  }  Ticket::~Ticket()  {  }  -----------------------------------------------------------------------------------------------------------------------  #pragma once  #include "Ticket.h"  class AdvanceTicket :public Ticket  {  private:  int advanceDays;  public:  AdvanceTicket(int advanceDays);  AdvanceTicket(int number, double price);  AdvanceTicket(int number, double price, int advanceDays);  AdvanceTicket(int number, int advanceDays);  AdvanceTicket(double price, int advanceDays);  AdvanceTicket(const AdvanceTicket &copy);  AdvanceTicket();  ~AdvanceTicket();  double getPrice();  int getAdvanceDays();  void show();  };  -----------------------------------------------------------------------------------------------------------------------  #include "AdvanceTicket.h"  #include <iostream>  using namespace std;  AdvanceTicket::AdvanceTicket()  {  }  AdvanceTicket::AdvanceTicket(int advanceDays):  advanceDays(advanceDays)  {}  AdvanceTicket::AdvanceTicket(int number, double price) :  Ticket(number, price)  {}  AdvanceTicket::AdvanceTicket(int number, double price, int advanceDays):  Ticket(number,price), advanceDays(advanceDays)  {}  AdvanceTicket::AdvanceTicket(int number, int advanceDays):  Ticket(number),advanceDays(advanceDays)  {}  AdvanceTicket::AdvanceTicket(double price, int advanceDays):  Ticket(price),advanceDays(advanceDays)  {}  AdvanceTicket::AdvanceTicket(const AdvanceTicket &copy) :  advanceDays(copy.advanceDays)  {  cout << "복사생성자" << endl;  }  AdvanceTicket::~AdvanceTicket()  {  }  double AdvanceTicket::getPrice()  {  if (this->advanceDays < 5)  return Ticket::getPrice()\*0.9;  else if(this->advanceDays<10)  return Ticket::getPrice()\*0.8;  else if (this->advanceDays < 20)  return Ticket::getPrice()\*0.7;  else if (this->advanceDays < 30)  return Ticket::getPrice()\*0.6;  }  int AdvanceTicket::getAdvanceDays()  {  return this->advanceDays;  }  void AdvanceTicket::show()  {  cout << "티켓번호 : " << this->getNumber() << endl << "티켓가격 : " << this->getPrice() <<endl<<"누적 일수" <<this->getAdvanceDays()<<endl;  }  -----------------------------------------------------------------------------------------------------------------------  #pragma once  #include "Ticket.h"  #include <iostream>  class GeneralTicket :  public Ticket  {  private:  bool payBycredit;  public:  GeneralTicket();  GeneralTicket(GeneralTicket& copy);  ~GeneralTicket();  GeneralTicket(int number, double price, bool paybycredit);  double getPrice();  bool getPayBtCredit();  void show();  };  #include "GeneralTicket.h"  using namespace std;  GeneralTicket::GeneralTicket()  :GeneralTicket(0, 0, false)  {  }  GeneralTicket::GeneralTicket(GeneralTicket& copy)  : Ticket(copy), payBycredit(copy.payBycredit)  {  }  GeneralTicket::~GeneralTicket()  {  }  GeneralTicket::GeneralTicket(int number, double price, bool paybycredit)  :Ticket(number, price), payBycredit(paybycredit)  {    }  double GeneralTicket::getPrice()  {  double aa = payBycredit ? 1.1 : 1;  return Ticket::getPrice() \* aa;  }  bool GeneralTicket::getPayBtCredit()  {  return payBycredit;  }  void GeneralTicket::show()  {  cout << "티켓 번호 : " << getNumber() << " / 카드 결제 유무 : " << (payBycredit ? "유" : "무") << " / 티켓 가격 : " << getPrice() << endl;  }  #pragma once  #include "Ticket.h"  #include <iostream>  using namespace std;  class TicketManager  {  private:  const static int MAX = 5;  int num = 0;  Ticket \*tickets[MAX];  string m\_name;  double total;  public:  TicketManager();  ~TicketManager();  double getTotalPrice();  void show();  void Ticketing(Ticket&);  };  -----------------------------------------------------------------------------------------------------------------------  #include "TicketManager.h"  #include <iostream>  using namespace std;  TicketManager::TicketManager()  {  }  TicketManager::~TicketManager()  {  }  double TicketManager::getTotalPrice()  {  total = 0;  for (int i = 0; i < MAX; i++) {  total += tickets[i]->getPrice();  }  return total;  }  void TicketManager::show()  {  for (int i = 0; i < MAX; i++) {  tickets[i]->show();  }  }  void TicketManager::Ticketing(Ticket &ticket)  {  tickets[num] = &ticket;  num++;  } |
| **실행결과** |
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