

## Design ATM Machine

### ATM

CardReader  
Keypad  
Screen  
Cashdispenser  
Deposit slot  
Printer

```
bool authenticate (card, pin);  
void start Transaction ();
```

### User

```
String name;  
Card card;  
Account  
Transaction MakeTransaction  
(transactionType, amount);
```

### Card

```
Card no.  
expiry date;  
pin.  
map <String, Account  
Accounts;  
validate pin (pin);  
validateCard (card no)
```



## Account

balance ;  
daily withdraw limit ;  
daily deposit limit ;

```
bool deposit ( ) ;  
bool withdraw ( ) ;  
" can deposit ( ) ;  
" can withdraw ( ) ;  
get Balance ( ) ;
```

ENUM TransactionType =  
{ withdraw, deposit } ;

## Transaction

TransactionType type ;  
DateTime transactionTime ;  
double amount ;

```
void logTransaction ( ) ;  
bool execute ( ) ;
```

Withdraw Transaction  
Account acc ;

```
execute ( ) {  
acc → withdraw ( ) ;  
}
```

Deposit -  
Account acc

```
execute ( ) {  
acc → deposit ( ) ;  
}
```



Card Reader

bool readCard();

CashDispenser

bool dispenseCash();

Key Board

string getInput();

Screen

void showMessage();

Printer

void printReceipt(  
Transaction T);