```
Currency
# abbreviation: string
# currencyNote : string
# currencyNotePlural : string
# currencyCoin: string
# currencyCoinPlural : string
# wholeParts: int
# fractionalParts: int.
+ Currency():
+ Currency( abbr : string, note : string, notePlural string, coin : string,
+ coinPlural: string, whole: int, fractional: int)
+ ~Currency(): virtual
+ fractionsInWhole: static const int
+ empty(): void
+ isEmpty(): bool
+ isSameType(currency : const Currency) : bool
+ addWhole(a : const double) : void
+ addFractional(a : const int) : void
+ getCurrencyAbbreviation() const : string
+ getCurrencyNote() const : string
+ getCurrencyNotePlural() const : string
+ getCurrencyCoin() const : string
+ getCurrencyCoinPlural() const : string
+ setCurrencyAbbreviation(abbr : const string) : void
+ setCurrencyNote(note : const string) : void
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+ setCurrencyNotePlural(notePlural: const string): void

+ setCurrencyCoinPlural(coinPlural: const tring): void

+ setTotalFractionalParts(totalFractional : const int) : void+ setTotalWholeParts(totalWhole : const double) : void

+ setCurrencyCoin(coin : const string) : void

+ getWholeParts() const : int
+ getFractionalParts() const : int

+ geTotalWholeParts() const : double + getTotalFractionaParts() const : int

+ setWholeParts(whole : const int) : void

+ setFractionalParts(fractional : const int) : void

```
+ operator+ (a : const double) const : Currency
+ operator- (a : const double) const : Currency
+ operator+= (a : const double) : Currency&
+ operator-= (a : const double) : Currency&
+ operator+ (currency : const Currency&) const : Currency
+ operator- (currency : const Currency&) const : Currency
+ operator+= (currency : const Currency&) : Currency
+ operator= (currency : const Currency&) : Currency
+ <<fri>+ <<friend>>operator == ( left : const Currency&, right : const
   Currency&): bool
+ <<friend>>operator != ( left : const Currency&, right : const
   Currency&): bool
+ <<friend>>operator < ( left : const Currency&, right : const
   Currency&): bool
+ <<friend>>operator > ( left : const Currency&, right : const
   Currency&): bool
+ <<friend>>operator <= ( left : const Currency&, right : const
   Currency&): bool
+ <<fri>+ <<friend>>operator >= ( left : const Currency&, right : const
   Currency&): bool
+ <<friend>>operator >> ( is : istream&, currency : Currency&) :
   istream&
+ <<friend>>operator << ( os: ostream&, currency : Currency&) :
   ostream&
```

# Dollar + Dollar (whole : int, fractional : int) : + ~Dollar() :

## Euro + Euro(whole : int, fractional : int ) :

+ ~Euro () :	
Yen	
+ Yen(whole : int, fractional : int) : + ~Yen() :	
Rupee	
+ Rupee(whole : int, fractional : int) : + ~Rupee() :	
Yuan	
+ Yuan(whole : int, fractional : int) : + ~Yuan() :	
ExceptionCurre	encyMismatch
+ what () const : const char*	
ExceptionCurr	encyNegative

+ what() const : const char\*

### ExceptionWalletOutOfBounds

+ what() const : const char\*

## ExceptionWalletZero

+ what() const : const char\*

### Wallet

- dollar : Currency\*
- euro : Currency\*
- yen : Currency\*
- rupee : Currency\*
- yuan : Currency\*
- + Wallet():
- + Wallet(dol : double, eu : double, ye : double, ru : double, yu : double) :
- + ~Wallet():
- + getNumZeroCurrency(): int
- + getNumNonZeroCurrency(): int
- + emptyCurrency(index : int) : void
- + emptyCurrency(abbr : string) : void
- + emptyAllCurrency(): void
- + isCurrencyEmpty(index:int):bool
- + isCurrencyEmpty(abbr : string) : bool
- + addCurrency(index: int, amount: double): void

- + addCurrency(index: int, whole: int, fractional: int): void
- + addCurrency(abbr : string, amount : double) : void
- + addCurrency(abbr : string, whole : int, fractional : int) : void
- + removeCurrency(index : int, amount : double) : void
- + removeCurrency(index : int, whole : int, fractional : int) : void
- + removeCurrency(abbr : string, amount : double) : void
- + removeCurrency(abbr : string, whole : int, fractional : int) : void
- + isWalletEmpty(): bool
- + operator[](index : const int) : Currency&