new skills

and how to use them in assignment one

array list creates a huge pile of objects

```
ArrayList<String> al = new ArrayList<String>(); //begin
with  anew array list

        System.out.println("the initial size of your array
is " + al.size() + " items");
        String stock = "UVDF"; //initial demo symbol name
        String stock1 = "SSDD"; //initial demo symbol name
        al.add(stock);
        al.add(stock1);
        System.out.println("the contents of al, array list
are: " + al);//demonstrate the new contents
```

scanner takes user input

```
Scanner sc = new Scanner(System.in); //the scanner reads text you type while it's running

	System.out.println("please enter the name of a stock to get :");
	String response = sc.nextLine(); //the user should be able to type in a symbol
```

enhanced for loop helps iterate array lists quickly and efficiently

```
boolean there = false;

        for(String s : al)  //studies each symbol inside the market
        {
            if(s.equalsIgnoreCase(response)) //if the stock in the market
matches the incoming symbol,
            {
                System.out.println("the stock is present"); //say this
                there = true;
            }
            else
            {
                there = false; //there gets set
            }
        }
```

then we can do basic case/switch to take the next direction

```
if(there == true)
                {
                        System.out.println("just located the stock, what would you like to do?"  );
                        System.out.println("(1) buy a stock");
                        System.out.println("(2) check its price");

                        int choice = sc.nextInt();

                        switch(choice)
                        {
                        case 1:
                                System.out.println("entering the buy screen" );
                                initiateBuySequence (response);
                                break;
                        case 2:
                                System.out.println("entering the price screen" );
                                showPrice(response);//we'll have to code that...
                                break;
                        }

                        }
```

now mainX gets a market object

```
ArrayList<stock> market = new ArrayList<stock>();

        for(int x = 1; x <= 9000; x++)
        {
            stock s = new stock();

            market.add(s);//should have a market of 9,000 stocks...
            double p =   s.getPrice();
            System.out.println("price of that is " + p);
        }

        System.out.println("current size of market is " + market.size() +
" stocks");
```

critical building blocks:

1. we have the ability to create thousands of simulated equities (stocks)
2. each have a price, symbol as a double data type
3. we have the ability to store those stocks in a traversable data structure (array list)
4. then search for elements of that list by name

more...

5. once we locate an item inside our ‘market’, we can query for the price of that stock…

strategies for assignment one

1. make an array list within your main
2. add each stock to the array list inside the for loop
3. create a while-loop that keeps the scanner open until the user types the letter “Q”
4. so long as they don’t type Q, allow them to:

5. request to buy a symbol
6. lookup a symbol’s price

additionally….

perhaps construct another array list called the ‘portfolio’

this is a list of stocks you’ve purchased, from inside the market’s array list

(each has a price and symbol)