**Generics and comparable (7 days)**

Implement **MyArray**(T must be Comparable) generic class that has:

- MyArray() //creates array of size 10

- MyArray(int) //creates array of given size

- T get(int i) //returns an object in given index

- void add(T obj) //inserts object to an end (if no cell to insert then size+10)

- void remove(int i) //removes object in given index and shifts all objects

- int size() //returns the number of objects in MyArray

- sort() //sorts the T objects (as T is Comparable)

Create two classes: **Student**(name, age, gpa) and **Employee**(name, salary) and test MyArray with this two classes. Compare students by their GPA, and employees by their salary.

**Task 2:**

Create comparable class **Money**:

- int number //number in money (like 100$, so 100 is a number)

- String curr //currency, on of USD, EUR, RUB, TNG

- int amnt //amount of that money (like I have 5 of 100$, so 5 is amount)

In this class(or in another class) you must have a method that takes Money object and converts it to double in tenge:

double toTenge() //if it is implemented in money class

***or***

double toTenge(Money m) //you will need this method to compare moneys of different currencies. If it is implemented somewhere else

Create comparable class **Wallet** that has array of Money (Money arr[]).

Implement needed constructors and methods for this class.

- Wallet()

- Wallet(int)

- Money get(int i)

- void add(Money m)

- int size()

- void sort() - sorts money in a wallet

Now implement compareTo method in Wallet class(sum of all money in a wallet compared to the sum of money in another wallet).