Introduction

First, I want to talk about my program. There are two classes in this program. One of the classes is Kuba, the other Galli. Desired operations are performed according to the called methods. For example, 2 Kuba numbers are sent to the kuba add method for control purposes. In the sum function, these 2 numbers are first converted to base 10 system. Then the addition is made, and the sum is again converted to the base 7 system. In the same way, these procedures are carried out for Galli. This happens with other methods as well.

Kubaras and Gallions using people's keyboards can press numbers that are not available in their own number base. Therefore, this is checked, and an error message is sent in case of a problem.

After understanding how the program should work, the algorithm was put into logic and started to be written. When the written class was over, the data requested in the homework were tested.

Algorithm

1) *public void GetCurrency(Integer newKuba) & public void GetCurrency(Integer newGalli)*

The operation of this method is to check the entered number against the 7-based system. If one of the digits is greater than 6, it will give an error message. For this, I created a temp variable and assigned the remaining number here. The loop will continue as long as the number entered is not 0. The number will be divided by 10 each time. In this way, every digit of the number will be checked.
For Galli, the same procedures are performed according to the base 9 system.

2) *public void Add(Kuba newKuba) & public void Add(Galli newGalli)*

Two Kuba currencies will be added and the result will be Kuba. For this, 2 loops were created and the entered numbers were first converted to base 10. Then the addition process was made and it was converted back to the 7 base system.
For Galli, the same procedures are performed according to the base 9 system.

3) *String*.valueOf()

The java string valueOf() method converts different types of values into string. I have used this to measure the size of the number.

4) *public void ShowCurrency()*

It was used to put the Currency on the screen.

5) *public void Subtract (Kuba newKuba) & public void Subtract(Galli newGalli)*

Two Cuban currencies will be issued and the result will be Cuban currency. For this, 2 loops were created, and the entered numbers were first converted to base 10. Then extraction was done. Then the result is converted back to the 7-based system.
For Galli, the same procedures are performed according to the base 9 system.

6) *Character.digit()*

The Character.digit() is an inbuilt method in java which returns the numeric value of the character ch in the specified radix. So I used it in base conversion.

7) public void Add(Galli newGalli)

A Galli currency will be added to the Kuba currency and the result will be Galli. In this method, firstly, the Kuba number in the first 7-based system is converted to the 10-based system. Then, the Kuba number converted to the 9-based system in the Galli Convert() method is converted to the 10-based system in this method. The two numbers are added up and converted back to the base 9 system.

8) *public Kuba Add(Kuba newKuba)*

A Kuba currency will be added to the Galli currency and the result will be Kuba. In this method, firstly, the Galli number in the first 9-based system is converted to the 10-based system. Then, the Galli number converted to the 7-based system in the Kuba Convert() method is converted to the 10-based system in this method. The two numbers are added up and converted back to the base 7 system.

9) *public Galli Convert()*

The Kuba number in the 7-base system is converted to the Galli number in the 9-base system. After this transformation, the number is checked by calling the galli.GetCurrency(newGalli) method

10) public Kuba Convert()

The Galli number in the 9-base system is converted to the Kuba number in the 7-base system. After this transformation, the number is checked by calling the kuba.GetCurrency(newKuba) method.