NOTE:- Following question should be implemented using lambda expression. Use of inbuilt function is prohibited.

1. WAP to check the given no is palindrome or not. Don't use divide method.
2. WAP to check the given sequence of character in given string. Suppose that you are given following string "Taj is situated in Agra." And you have to find following sequence AST. AST should be one after another. If you found sta, or tas, or tsa it should print string not found.
3. User will be asked to enter two integer like 1 34 or 2 44 or 3 151 or 4 454. 1 to check given no is even, 2 for odd number, 3 for Armstrong number, 4 for palindrome number.
4. WAP to insert one string into another string. Also perform garbage collection when insertion is done.
5. User will enter following sequences 1,2,3,4,6,7,8,11,13,14,15,19,20,21. You have to generate following output.
   1-4,6-8,11,13-15,19-21.
6. WAP to print the following patterns using lambda expression

   ABCDEFEDCBA

   ABCDE EDCBA

   ABCD DCBA

   ABC CBA

   AB BA

   A A

   User will enter middle character in above case user has entered F and you printed above pattern. If user enter G pattern will look like following

   ABCDEFGFEDCBA and so on.

7. WAP to calculate EMI and print the total number of EMIs for given amount, rate of interest and time duration. (Time can also be like this 12 months, 18 months, 24 months etc).
8. With the help of lambda expression implements multithreading. Two threads simultaneously work on a resource which is going to be

increased by one thread and decreased by another thread. Thread one will increase resource value by 10% and thread two decreased value by 7%. This process will continue until user stop the thread.

9. WAP to implements quick sort algorithm using lambda expression.
10. WAP to which will take the year and sell in that year. User will enter 5 or 10 years data.

Year	2015	2016	2017	2018	2019
Sell (in crore)	5	6	5.5	6.5	8

Above data is sample data now you have to predict the sell for the year 2020, or 2021 or 2022 on the basis of the given year sell data. User can enter sell for any year and can ask for predication of sell for any given year.

Stream API Questions.

Class Item

{

int itemid;

String iname;

LocalDateTime date_of_manufacturing, date_of_expiry;

float price;

//setter and getter and constructor

}

1. WAP to find the average price of item from the list of given items.
2. WAP to print detail of item which is having highest and lowest price. (separate programs should be used.
3. WAP to print the item with maximum price and not having any expiry date(item like water bottle, and dresses not having any expiry date)
4. WAP to store item name and price from list to set.
5. WAP to remove duplicate prices from the list of the items.

```
class State
{
 int stated;
 String statename;
}
class City
{
 int cityid;
String cityname;
State objState;
Float pollutionIndex;
Int population;
Int area_of_city;
}
```

1. WAP to find the city with less area and highest population
2. WAP to find the city with high pollution_index and high city area.
3. WAP to print the city detail on the basis of lowest pollution_index first and so on.
4. WAP to print city with lowest pollution index and lowest area of city.
5. WAP to count how many cities in every state we are having.
6. WAP to print total area of each state.

```
Class Student
{
Int rollno;
LocalDateTime date_of_addmission,dob;
String maths, physics, chemistry, English, hindi; //  marks in subjects
String classname;
}
```

Note:- student who score more than 40 will promoted to next class

1. WAP to print list of all students who's total marks are less than 40%.
2. WAP to print list of all those students who scored more than 75% in any of 3 subjects.
3. WAP to print list of all those students who scored more than 75% in all subjects.
4. WAP to find those students who are fail in at least one subject.
5. Find how many students are promoted to another class.
6. Find how many students need to give exam in two subjects to promoted to another class.