1.

* The main method waits to get input from the users until it is terminated. The input that it receives is any string. As soon as the main method receives the input it delegates the assignment of creating a password to a thread. The thread generates a random number and appends this number to the string that is passed and displays the password. Write a java program to do this.
* Hint : Use java.util.Random class to generate random numbers.

2.

Create a java application where a thread generates a single digit random number and

stores it in an array. another thread calculates sum of these numbers and prints it.

Test the above with a client program.

(use anonymous classes).

Define methods genRandomNumber() and calculateSum() in a class NumberGenerator.

3

Create a java application using threads to implement queue of messages.

create 2 threads a consumer and a producer thread where producer thread produces a message,

consumer consumes a message and notifies the producer thread to produce the next message and

vice versa (2 way thread communication)

4.

* Write a bank class that has an array of account objects. The method transfer allows transfer of money from one account to another account. Using the hints to avoid deadlocks from the previous slide implement the transfer method.
* Test the application by creating two threads that simultaneously transfers money form accounts 11111111 to account 22222222 and vice versa.

5.

* *Consider the following scenario. Whenever a hen lays an egg its owner sells the egg to a shop. In the last 4 months the owner has gained Rs. 100 by selling eggs in the rate of Rs.2 per egg. Display the following messages*

*Hen Laid the Egg – 1*

*Owner gained Rs 2*

*Hen Laid the Egg – 2*

*Owner gained Rs 4*

*…*

*…*

*So on.*