1. **Session 8: Collection classes in Java**
2. **Intended Learning Outcome:**
    a. Be familiar with the Java collections framework.
    b. Understand the idea of Java Generics
    c. Be able to implement sophisticated applications using different Java collections
3. **Expected skills:**

    - Knows what is Collection framework.
    - Knows about Collection interface, Collection class and Collection hierarchy,
    - Can implement ArrayList.
    - Can implement HashMap.
    - Can implement LinkedList.

4. **Tools Required:**
    a. JDK
    b. ECLIPSE / NETBEANS
5. **Session Detail:**

    1. Teacher will give lecture on Collection framework. (10 minutes)
    2. Teacher will give lecture on the Collection hierarchy. (20 minutes)
    3. Teacher will show how to use ArrayList. (30 minutes)
    4. Teacher will show how to use HashMap. (30 minutes)
    5. Teacher will show how to use LinkedList. (30 minutes)
    6. Project Mentors Session. (60 minutes)

6. **Post Lab Exercise:**
    a. ArrayList:
    http://javaconceptoftheday.com/java-arraylist-programming-examples/
    b. HashMap:
    http://www.java2novice.com/java-collections-and-util/hashmap/
    c. LinkedList:
    http://www.worldbestlearningcenter.com/index_files/java-oop-singly-linkedlist-exercise.htm
    http://www.worldbestlearningcenter.com/index_files/java-oop-singly-linkedlist-count-elements-exercise.htm

7. **Further Readings:**
    a. http://www.javatpoint.com/collections-in-java
    b. https://ocw.mit.edu/courses/civil-and-environmental-engineering/1-00-introduction-to-computers-and-engineering-problem-solving-spring-2012/lecture-notes/MIT1_00S12_Lec_11.pdf
    c. http://www.javatpoint.com/java-linkedlist
    d. https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html
    e. http://www.javatpoint.com/difference-between-arraylist-and-vector