**LEBANESE AMERICAN UNIVERSITY**

**School of Arts and Sciences**

**Department of Computer Science and Mathematics**

**LAB 10**

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**Problem 1:**

Use a one-dimensional array to solve the following problem: A company pays its salespeople on a commission basis. The salespeople receive $200 per week plus 9% of their gross sales for that week. For example, a salesperson who grosses $5000 in sales in a week receives $200 plus 9% of $5000, or a total of $650. Write an application (using an array of counters) that determines how many of the salespeople earned salaries in each of the following ranges (assume that each salesperson's salary is truncated to an integer amount):

1. $200-299

2. $300-399

3. $400-499

4. $500-599

5. $600-699

6. $700-799

7. $800-899

8. $ 900-999

9. $1000 and over

Summarize the results in tabular format

**Problem 2:**

Write an application that simulates the rolling of two dice. The application should use an object of class Random once to roll the first die and again to roll the second die. The sum of two values should then be calculated. Each die can show an integer value from 1 to 6. The sum of the values will vary from 2 to 12 with 7 being the most frequent sum, and 2 and 12 the less frequent sum. Your application should roll the dice 3600 times. Use one dimensional array to tally the number of times each possible sum appears. Display the result for example: 36 played that had the sum of 11

**Problem 3:**

Write an application that manages a list of students and return the students’ names, id numbers and final grades using array of objects

**Output**

**Number of Students: 5**

**Average grades: 78.8**

**Grades List:**

* **name1 20101001 98**
* **name2 20101002 75**
* **name3 20101003 82**
* **name4 20101004 61**
* **name5 20101005 78**

**Good luck**