

# Department of Computer Science

## 420-101-VA Programming 1

Teacher: Nagat Drawel

### Week 4 part 1: `if`, `if..else` and `if..else..if` statements

#### Requirement:

1. **Keep your code clean** (indent, right spacing, appropriate identifier, camel case).
2. Add appropriate comments if it is necessary.
3. Please demonstrate your working programs to your teacher. **Failing to explain your own code will be heavily penalized.**
4. The lab must be submitted on Omnivox (Lea) before the end of the class.

#### What to do:

1. Write a Java program that prompts the user for a checking account balance and a savings account balance. Display the message "Checking account balance is low" if the checking account balance is less than \$300. Display the message "Savings account balance is low" if the savings account balance is less than \$1000
2. Develop a Java program that calculates the fare for passengers based on age categories as follows:
  - a. Children, defined as individuals aged 11 years or younger, are charged \$2.
  - b. Seniors, defined as individuals aged 65 years or older, are charged \$3.
  - c. Adults, defined as individuals aged between 12 and 64 years, are charged \$5.

The program should prompt the user to input their age and then determine and display the applicable fare based on the provided age category

3. A software company sells a package that retails for \$99. Quantity discounts are given according to the following table:

Quantity	Discount
10–19	20%
20–49	30%
50–99	40%
100 or more	50%

Write a program that asks the user to enter the number of packages purchased. The program should then display the amount of the discount (if any) and the total amount of the purchase after the discount.

4. Develop a Java program designed to generate a tuition bill for students. The program should receive input information comprising the student's name, Social Security Number (SSN), and the total number of credits for which the student has enrolled. Subsequently, it should generate an output bill that includes the student's name, Social Security Number, and the calculated tuition. The tuition calculation is as follows:
  - If the total number of credits is 10 or more, the student is classified as a full-time student and is billed a flat rate of \$1000 for tuition.
  - If the total number of credits is less than 10, the student is considered a part-time student and is charged at a rate of \$100 per credit for tuition
  
5. An Internet service provider has three different subscription packages for its customers:
  - Package A: For \$9.95 per month 10 hours of access are provided. Additional hours are \$2.00 per hour.
  - Package B: For \$13.95 per month 20 hours of access are provided. Additional hours are \$1.00 per hour.
  - Package C: For \$19.95 per month unlimited access is provided.

Write a java program that calculates a customer's monthly bill. It should ask the user to enter the letter of the package the customer has purchased (A, B, or C) and the number of hours that were used. It should then display the total charges.