

# Northern Marianas College

## CS 229 – Java Programming

### Project 1: Casino Project

#### Objective:

In this lab you will create a Java program that utilizes input, output, selection and loop programming structures.

#### Requirements:

The Dynasty Casino in Tinian has decided to automate the chip counting and taxable winning calculations based on new IRS regulations using a computer program. They heard of your programming talents and have contracted with you to create a chip counting program that will assist in cashing out client's chips. They have agreed to have you over for an all expense paid week to observe the casino in action. The Dynasty Casino will pay you one red chip per hour until you complete the program. The program will be constructed in phases with each phase being worth 10 points.

#### ***Phase 1: Chip Counting and Winnings Calculation, Due March 23, 15 Points***

The customer submits to the cashier all chips they wish to cash out. Chips are counted and the total sum is calculated based on the following chip values:

Black = \$5    Blue = \$20    Red = \$50    Green = \$100    Gold = \$500

The customer submits receipts for purchased to the cashier. The winnings are calculated by subtracting the receipt total from the chip value total.

The program will output the total value of the chips and calculated winnings.

#### ***Phase 2: Withholding Tax Calculation, Due April 4, 15 Points***

The winnings are calculated based on the previous information by subtracting the receipt total from the chip value total. If the customer has lost they are simply paid cash for all chips.

If the customer has won, the following information needs to be requested and calculations made to determine withholding tax based on the latest IRS regulations:

1. U.S. & Guam Residents will have 20% withholding tax based on winning.
2. CNMI Residents will have 10% withholding tax based on winnings.
3. All foreign residents will have no withholding tax based on winnings.

The cash out is determined by subtracting the tax from the total chip value.

#### ***Phase 3: Withholding Tax Calculation, Due April 20, 20 Points***

Validate all input to accept only valid numerical data. Request Social Security Number for US and CNMI Residents. Use a loop to allow multiple gamblers to enter data so the program need not be restarted for each customer. Use a second loop to calculate total receipt value for multiple receipts and an entered "0" as the sentinel value. Create formatted output for display and record the same output to a file called transactions.txt.