**The Great Computer Challenge, 2018**

***Object-Oriented Programming, Level VI***

# **Background: Automatic Teller Machine Challenge 2**

Write an application to emulate a simple Automatic Teller Machine.\_ This ATM must allow your customers to make cash withdrawals and check account balance, and deposit cash or checks while maintaining their latest balance.

# **Guidelines & Requirements**

Your program must perform the following:

1. Read the names, pin numbers, and account balances of 5 customers from an input text file you will be creating with the data shown below.
2. Display a welcome screen followed by a prompt for the user to enter a name and pin number.
3. If the entered information matches that of a customer:
   1. Welcome the customer by name.
   2. Display the following choices:
      1. Withdrawal
      2. Deposit
      3. Current balance
      4. Exit
4. Should the entered information not match that of any of your customers, inform the user that the entered information does not match existing customers and to try again.\_ Follow this by displaying of the original welcome screen (step 2).
5. If the Withdrawal option is selected, prompt the customer for the withdrawal amount, and when entered, echo the amount, display the latest balance, then prompt the user to enter any key to view menu in step 3b. Ensure the customer does not withdraw more than the current balance.
6. If the Deposit option is selected, prompt the customer for the deposit amount, and when entered, echo the deposit amount, display the latest balance, then prompt the user to enter any key to view the menu in step 3b.
7. The Current balance option must display the current balance followed by a prompt for the user to enter any key to view the menu in step 3b.

# **Judging Criteria**

Create an input text file with the names, pin numbers, and balances of 5 customers as shown below:

|  |  |  |
| --- | --- | --- |
| **Name** | **Pin Number** | **Balance** |
| Samuel Coppage | 1234 | 1000.00 |
| William Crouch | 2345 | 1100.00 |
| Vijay Kalburgi | 3456 | 1200.00 |
| Harris Wu | 4567 | 1300.00 |
| Renee Weather | 5678 | 1400.00 |

# **SOL Correlation**

C/T K-2.4

Plan and apply strategies for gathering information, using a variety of tools and

sources, and reflect on alternate strategies that might lead to greater successes in

future projects.

A. Identify information in various formats.

•Recognize that information may be presented as printed text, electronic

text, audio, video, or images.

B. Identify available sources of information.

•Be able to name and use sources of information available at school and

outside the school.

Thinking Skills, Problem Solving, and Decision Making

C/T K-2.5

Practice reasoning skills when gathering and evaluating data.

A. Recognize that technology can be used to solve problems and make informed

decisions.

•Communicate how a decision was made based on assistance from a

technology tool.

B. Use technology tools to assist with problem solving.

•Demonstrate how technology can be used to investigate and solve

problems in various content areas.

Technology Communication Tools

C/T K-2.6

Communicate effectively with others (e.g., peers, teachers, experts) in

collaborative learning situations.

A. Use technology tools for individual and collaborative writing,

communication, and presentation activities.

•Use word processing to practice writing skills.

•Use common graphic and presentation tools when preparing and providing

presentations.

B. Recognize tools useful for communication.

•Identify how different technologies appeal to different senses.

Have fun and thanks for participating in the Great Computer Challenge, 2018!