**Pseudo Code for Gas Menu**

**Begin** //Program Class GasMenu

BEGIN

**Set** Scanner for **INPUT**

**END**

**Begin** //Start of Method displayMenu

//Heading

**Output** “\*\*\*\*\*\*\*\*\*Business Account\*\*\*\*\*\*\*\*\*\*\*\*”

**Output** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

//summary

**Output** “Option 1: Create New Customer”

O**utput** “Option 2: Deposit An Amount”

**Output** “Option 3: Enter Units Used”

**Output** “Option 4: Display Balance”

**Output** “Option 5: Display Full Account Details”

**Output** “Option 6: Amend Discount”

**Output** “Option 7: Amend Cost Per Unit”

**Output** “Option 8: Help For User”

**Output** “Option 9: Exit”

**End**// End of method displayMenu

**Begin** //method getSelection

**Variable** **Declared**

**SET** int choice = 0;//set to zero

**SET** boolean ok = false;// boolean rule

**DO** {

**Output** "Enter choice"

**TRY** // try condition - block

**Declare Variable & INPUT**

**SET** choice = input nextInt//input for user

ok = true

**END TRY**

**CATCH(Exception ex**){

**Output** “Error - Try Again!"

**END CATCH**

**END DO LOOP**

**SET** while(ok == false);

**RETURN** choice;

**End**// end of getSelection method

**BEGIN //**MAIN METHOD

**DECLARE VARIABLES & SET VALUE**

BusinessAccount acc = null//value set to null for input into parameters

**SET** boolean quit = false//boolean set to false

**DO** //do while loop allowing for at least one attempt choosing an option

**Method Call** displayMenu//method called to display options

**SWITCH**(value){//switch set for options

**BEGIN CASE 1** :

**TRY**//try allows user to input in case 1

**OUTPUT** “Enter Reference Number”

**INPUT** nextInt();//input for reference number

**OUTPUT** “Customer Reference No: " .

**OUTPUT** “Enter Customer Name: "

**INPUT** nextLine;//clearing of any input

**DECLARE VARIABLE & INPUT**

String Name= **INPUT** nextLine //input for string name

**INPUT** string into instance setter

**DECLARE VARIABLE EQUALS GETTER FOR NAME**

**OUTPUT** “Customer Name: " & **VARIABLE** Name

**OUTPUT** "Enter Customer Address: "

**VARIABLE** Name

**INPUT** = Address

**OUTPUT** “Customer Address: " + **VARIABLE ADDRESS**

**OUTPUT** "Enter Units Used: "

**VARIABLE** Units = INPUT DOUBLE

**OUTPUT** “Current Units Used: " + **VARIABLE** Units

**OUTPUT** “Enter Discount: "

**VARIABLE** Discount = **INPUT** Double

**OUTPUT** “Customers Discount: " + V**ARIABLE** discount

**OBJECT CREATED WITH NULL PARAMETERS**

acc = new BusinessAccount

Reference No – Name – Address – Units - Discount

**END TRY**

**BEGIN CATCH**

**OUPUT** “Error in input - try again!"

**INPUT** nextLine();//clear next line

**END** CATCH

**BREAK**

**END** CASE: 1

**BEGIN CASE** 2 :

**BEGIN TRY**

**OUPUT** "Enter Amount To Deposit”

**DECLARE VARIABLE EQUALS INPUT**

deposit = **INPUT** Double

Enter deposit into parameter of instance

**VARIABLE** Balance Equals GETTER BALANCE

**OUTPUT** “Remaining Balance £ "+ VARIABLE

**END TRY**

**BEGIN CATCH** // user must use option 1 or Error

**OUTPUT** “Error - Create Customer First - Option 1"

**END CATCH**

**END CASE**:2

**CASE 3**

**BEGIN TRY**{//allows for entering of correct input

**OUTPUT** "Enter Units Used: "

**VARIABLE** recUnits = **INPUT** Double //input for number of units

**INPUT** recUnits into Parameter -

**INSTANCE** acc.recordUnits(recUnits)

**VARIABLE** recBal equals getBalance - acc.getBalance

**OUTPUT** “Balance with Discount £ " +recBal);//display balance in output

**END TRY**

**CATCH**(Exception ex){//exception for erroneous input with option Create Customer First

**OUTPUT** "Error - Create Customer First - Option 1");// output for choice

**INPUT** nextLine//input another option

**END CATCH**

**Break** //End of case 3

**CASE 4** :

**TRY**

**VARIABLE** double getBal EQUALS acc.getBalance //method call for balance

**OUTPUT** "Your Balance £ "+getBal);//display balance in output

**END TRY**

**CATCH** (Exception ex){//exception for erroneous input with option Create Customer First

**OUTPUT** "Error - Create Customer First - Option 1"

**INPUT** choose another option.

**END CATCH**

**END OF CASE 4**

**CASE 5**

**TRY** //allows for entering of correct input

**OUTPUT** **& METHOD** “Customer Reference No: " +acc.getAccRefNo

**OUTPUT** **& METHOD** "Customer Name: " +acc.getName

**OUTPUT & METHOD** "Customer Address: " +acc.getAddress

**OUTPUT & METHOD** "Current Discount: " +acc.getDiscount

**OUTPUT & METHOD** "Current Units: " +acc.getUnits

**OUTPUT & METHOD** “Customer Balance £ " +acc.getBalance

**END OF TRY**

**CATCH**(Exception ex)

**OUTPUT** “Error - Create Customer First - Option 1"

**INPUT** // enter another choice

**END OF CATCH**

**END OF CASE 5**

**CASE 6**

**TRY**

**OUTPUT** “Enter New Discount Rate: "

**VARIABLE** amendRate EQUALS INPUT Double

**PARAMETER FOR SETTER**  acc.setDblNewDiscount(amendRate)

**OUTPUT** **& GETTER** “New Discount Rate: " +acc.getDiscount

**END OF TRY**

**CATCH**(Exception ex)

**OUTPUT** “Error - Create Customer First - Option 1"

**INPUT** another choice

**END OF CATCH**

**END OF CASE 6**

**CASE 7**

**TRY**

**OUTPUT** “Enter New Cost Per Unit: "

**VARIABLE** double amendUnit **EQUALS INPUT**

**PARAMETER amendUnit entered into SETTER** acc.setDblUnitCost(amendUnit)

**OUTPUT & GETTER** “New Unit Cost £ " +acc.getUnitCost

**END OF TRY**

**CATCH** (Exception ex)

**OUTPUT** “Error - Create Customer First - Option 1"

**INPUT** enter another option

**END OF CATCH**

**END OF CASE 7**

//Summary

CASE 8:

**OUTPUT** "Creating A Business Account Customer"

**OUTPUT** "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “See Menu Choice Options 1 - 9"

**OUTPUT** "Customer Must Be Created First By Choosing Option 1"

**OUTPUT** “Create New Customer”

"\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"

**OUTPUT** “Enter Choice: 1"

**OUTPUT** "Press Enter"

**OUTPUT** “Enter Reference Number - e.g '10284'”

**OUTPUT** “Press Enter"

**OUTPUT** "Enter Full Name Of Customer - e.g 'John Taylor'”

**OUTPUT** “Press Enter"

**OUTPUT** Enter Customer Address - e.g '28 Farnam Road'”

**OUTPUT** "Press Enter");

**OUTPUT** “Enter Units Used - e.g '5468.0'"

**OUTPUT** “Press Enter"

**OUTPUT** “Enter Discount - e.g '12.5'");

**OUTPUT** “Press Enter");

**OUTPUT** "Deposit An Amount"

**OUTPUT** "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** "Enter Choice: 2"

**OUTPUT** "Press Enter"

**OUTPUT** “Enter The Amount The Customer Wants To Pay Of Their Balance - e.g '25.0'"

**OUTPUT** “Press Enter");

**OUTPUT** “Enter Units Used”

**OUTPUT** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*” **OUTPUT** “Enter Choice: 3"

**OUTPUT** “Press Enter"

**OUTPUT** “Enter The Amount Of Units That Customer Has Used - e.g '3784.0'"

OUTPUT “Press Enter"

**OUTPUT** “Display Balance"

**OUTPUT** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “Enter Choice: 4"

**OUTPUT** “Press Enter"

**OUTPUT** “Balance Will Be Displayed"

**OUTPUT** “Display Full Account Details"

**OUTPUT** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “Enter Choice: 5"

**OUTPUT** “Press Enter"

**OUTPUT** “Customer Details Will Be Displayed"

**OUTPUT** “Amend Discount"

**OUTPUT** "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “Enter Choice: 6"

**OUTPUT** “Press Enter”

**OUTPUT** Enter The Discounted Rate, e.g - '12.5");

**OUTPUT** “Press Enter"

**OUTPUT** “Amend Cost Per Unit"

**OUTPUT** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “Enter Choice: 7”

**OUTPUT** “Press Enter"

**OUTPUT** “Enter The New Cost Per Unit, e.g - '0.39"

**OUTPUT** “Press Enter"

**OUTPUT** “Help For User"

**OUTPUT** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “Enter Choice: 8"

**OUTPUT** “Press Enter"

**OUTPUT** “Read Information On Each Option"

**OUTPUT** “EXIT”

**OUTPUT** “\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*”

**OUTPUT** “Enter Choice: 9"

**OUTPUT** “Press Enter"

**OUTPUT** “This Will Exit The Program"

**END OF CASE 8**

**CASE 9** :

quit = true;

**OUTPUT** “Exited Business Account”

**END OF CASE 9**

**DEFAULT**

**OUTPUT** “Error - Please select a number between 1 and 9"

**END OF SWITCH**

**WHILE LOOP** }

**SET** (quit != true)

**END OF MAIN**

**END OF CLASS**