Program Algorithm – Pseudocode

```python
# Component 2 - checking a username and password (logging in).
# This component takes an existing username and password (for a prevs regd user)
# and checks if they match a valid entry in the file (accounts.txt).
# assumes login is stored in the plaintext format "username,password"


# Get the current username and password
username = input("input username: ")
password = input("input password: ")


# combine username and password into one string
login = username +","+ password


# set flag to show login state
valid_entry = False


# open the accounts.txt file
file = open("accounts.txt", "r")


# check if the file is opened in read only mode
if file.mode == 'r':

    # read the entire file and return it as a list of strings
    # where each string represents a line from the file
    list = file.readlines()

    # iterate through each line using for loop
    for eachLine in list:

        # selection using equality operator
        if eachLine.strip() == login:

            # set flag for valid entry to true
            valid_entry = True

            # exit the loop
            break
    # show the result to the user
    print("login for", username, "is", valid_entry)
```
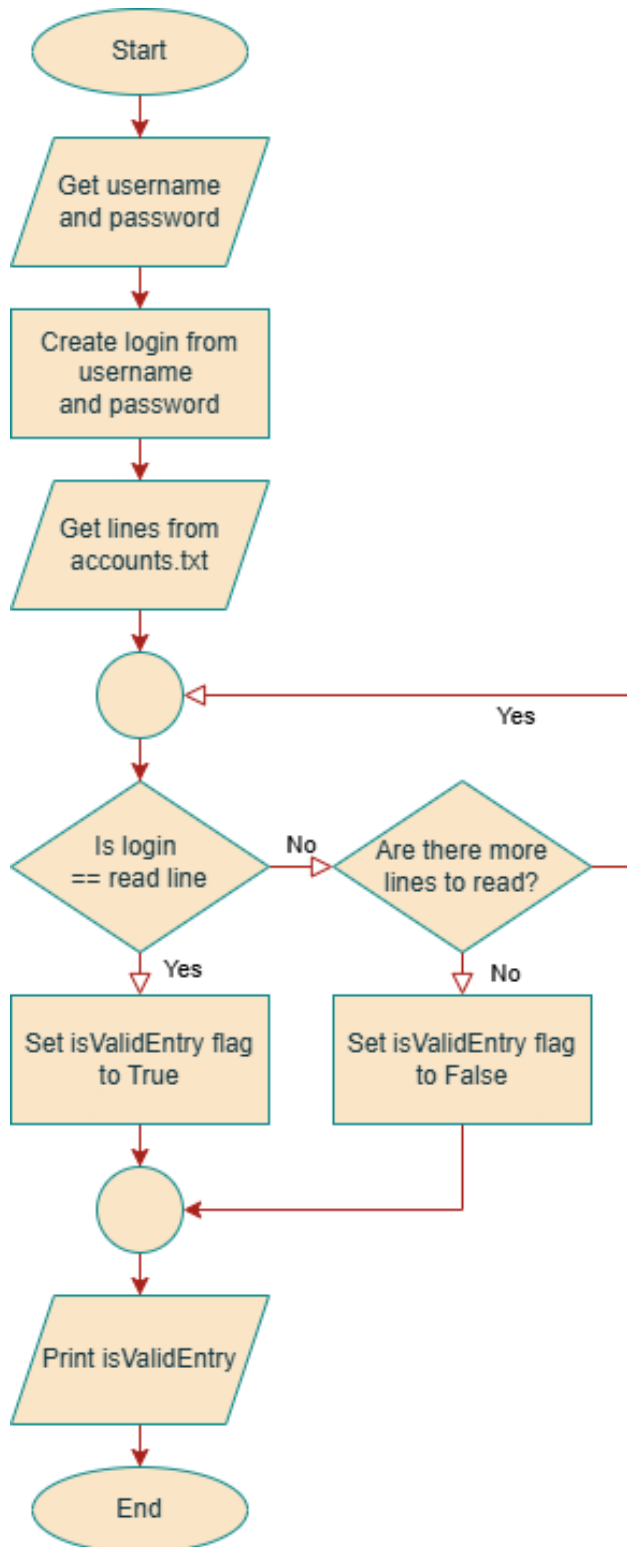
GELOS ENTERPRISES

Program Algorithm – Flowchart

```
Start
  │
  ▼
Get username
and password
  │
  ▼
Create login from
username
and password
  │
  ▼
Get lines from
accounts.txt
  │
  ▼
 (  )  ◄──────────────────────────┐
  │                          Yes   │
  ▼                                │
Is login  ──No──►  Are there more ─┘
== read line       lines to read?
  │                      │
 Yes                     No
  ▼                      ▼
Set isValidEntry    Set isValidEntry
flag to True        flag to False
  │                      │
  ▼                      │
 (  ) ◄──────────────────┘
  │
  ▼
Print isValidEntry
  │
  ▼
End
```

Algorithm Feedback

Supervisor Feedback