(a) i) Outsourcing means that a third party developer is contracted to design a system or software for the employer. This occurs usually at a different location.

ii) by outsourcing the construction of this software, the users of the software will have little influence on its design. Also, the software may not function in its desired environment properly and may be incompatable with the hardware of the bank. Also, the security of the bank's existing files needs to be considered.

iii) The development team needs to evaluate and survey the employees who will use this software and find out their level of technical knowledge, and things they would like included in the

program. They will also need to find out from the bank the exact specifications of the system they will be designing the software for. The development team may suggest to the bank that a new systems administrator be put in place that has knowledge of both the existing system and the new software. Staff at the bank may also need to be trained in using the software. New backup procedures such as off site storage of backup data should also be utilised.

(b) i) the ♂ symbol indicates a stub. This is put in places to check the data but not stall the processing of the system.
the ♂ indicates a flag where the system will output a message to the user eg Validated would be output in this system.

ii) ~~Not a letter~~.

The error is that if a customer does not swipe a card, then they can simply enter nothing as password, (meaning they leave it blank and hit enter).
   (I think)

The effect on the system is that this would allow unauthorised entry into the system and it would ~~~~ not be able to track ~~~~ the customer who did it.

```
iii) BEGIN  AcceptAndValidatePassword

        Index = 0

        WHILE  Index < 3  or  Validated = False

            IF  EnteredPass = StoredPassword THEN

                Validated = True

            ELSE  Index = Index + 1
            END IF
        End WHILE

        IF  Validated = False  And  Index => 3 THEN

            PRINT "You have been DENIED"

        END IF
    END  AcceptAndValidate Password
```