Q22

a) i)

```
┌─────────────────────────────────────────┐
│                                         │
│         TRANSACTIONS                    │
│                                         │
│   Please enter transaction details:     │
│                                         │
│    Stock number : [        ]            │
│                                         │
│    Quantity      : [        ]           │
│                                         │
│                          [ENTER]        │
│                                         │
└─────────────────────────────────────────┘
```

ii)

Input	Process	Output
Stock number	calculate new	new quantity on hand
Quantity	Quantity on hand	error messages
Quantity on hand		

iii)

```
BEGIN    MAINPROGRAM Mikes Bikes

get stock number
Set matchfound to false

Search inventory file
IF matchfound is true THEN

Update inventory file
    ELSE

        print error message
ENDIF
END MAINPROGRAM Mikes Bikes


BEGIN   SUBPROGRAM Update inventory file (stocknum, amount)
Repeat
Get stock number and Quantity
Inventory [stocknum]. Quantity on hand = Quantity on hand + amount

Until  stocknum = '999'
IF quantity on hand < 3 THEN
END   SUBPROGRAM Update inventory file

    print error message

ENDIF

END   SUBPROGRAM Update inventory file
```
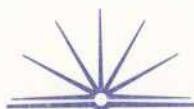
b) One type of documentation used is a log book. Log books are very important because you need to keep track of things you did while developing the software. The log book is used throughout the development cycle because changes are always being made and progress is also

being made that needs to be kept track of. Reasons for this may include future updates of the software by different programmer who need to know what was done and how in order to continue the same trend.

Another type of documentation is a data dictionary. This is developed in the planning and designing stage of the software development cycle. It is important that the requirements for the data are identified in this stage so later stages run more smoothly. Data types must be chosen carefully in order for the program to run as efficiently as possible and without errors. This is why the planning and designing stage is when the data dictionary is produced.