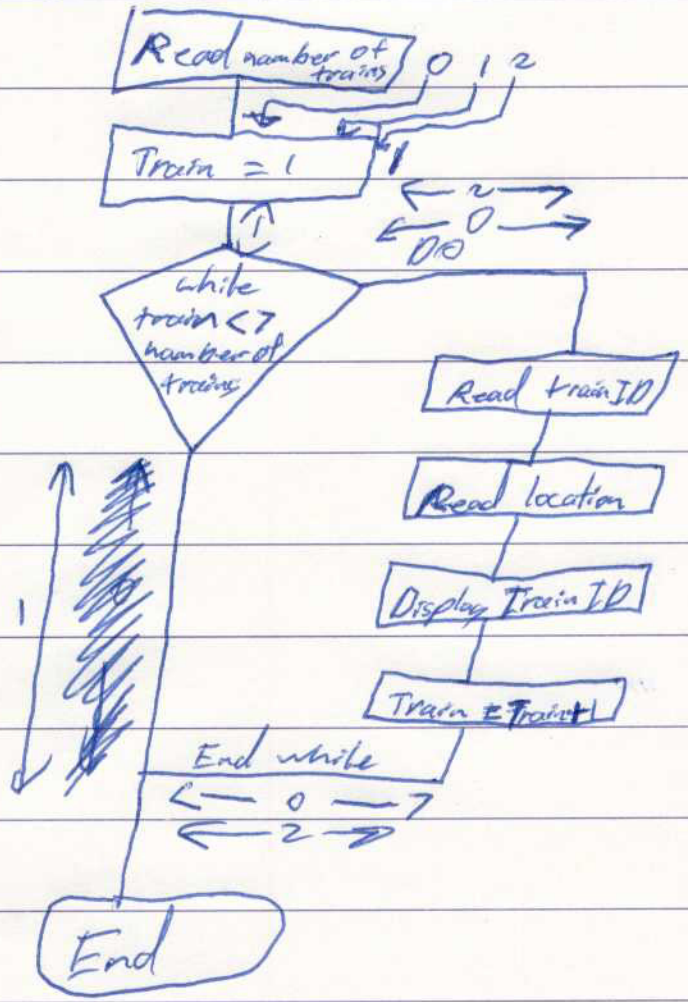
BOARD OF STUDIES NEW SOUTH WALES

Centre Number: ..... Student Number: .....

21. (a) i)

~~Read number of trains = (0)~~



0) while the number of trains is 0 the program will work it will ~~but~~ ~~[illegible]~~ ~~[illegible]~~.

1) while the number of trains = 1 it will go straight ~~Recomended solution place a boundary on number~~ to the end of the sub program. This would not work ~~of trains so it will not except 0 for go~~ because the first train would ~~[illegible]~~ ~~[illegible]~~ ~~[illegible]~~ allways be missing

Recomended solution to remove 1 from the selection of number of trains

2) while the number of trains is ~~+00~~ the program will work only until the trains = 2 then it will skip 2 and go on to 3.

Accomended solution make the selection of number of trains 0 and make it permanent and un changeable.

ii) This algorithm dose not work because it misses a train every time except when zero is ented there fore it leaves a train un marked and could cause a colision.

I come to this conclution by runing a the test data of 0, 1, and 2 through a desk check.

when the data was enterd and number of trains equald zero the program ran through the while statment colecting the trains details. While when 1 and 2 were ented it skiped the statment on trains 1 and 2 there for leving them blank also this program only runs once.

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iii) I would remove The more than simble ~~number of trains and~~ on the while statment ~~replace it with~~ this will remove the missing train and display it.

Later the end I would place a repeat statment so that it will repeat until the the ~~number~~ number of trains = the number of tracks

b) i) one ethical issue involved with this would be copy write laws and plagerism. This means that the person did not notify the owner of the code and passed it as his own this is not allowed through the copy write Act and is a punishable offence that can end up costing the person that copyed it by a fin or even ~~jail~~ goal.

ii) one way management could avoid these problems is by doing a back ground check on the code and see what copy write restrictions are

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placed on the code this may range from no you can not copy it to just having to place the owners name - and web site on the credits list.

They can also avoid this by asking for proof that the programmer actualy wrote the code. this would stop the copying of illegal software code into another soft ware program.

Also the manager can run a back ground check on the programmers to see if any of the previous programs had any of these faults.