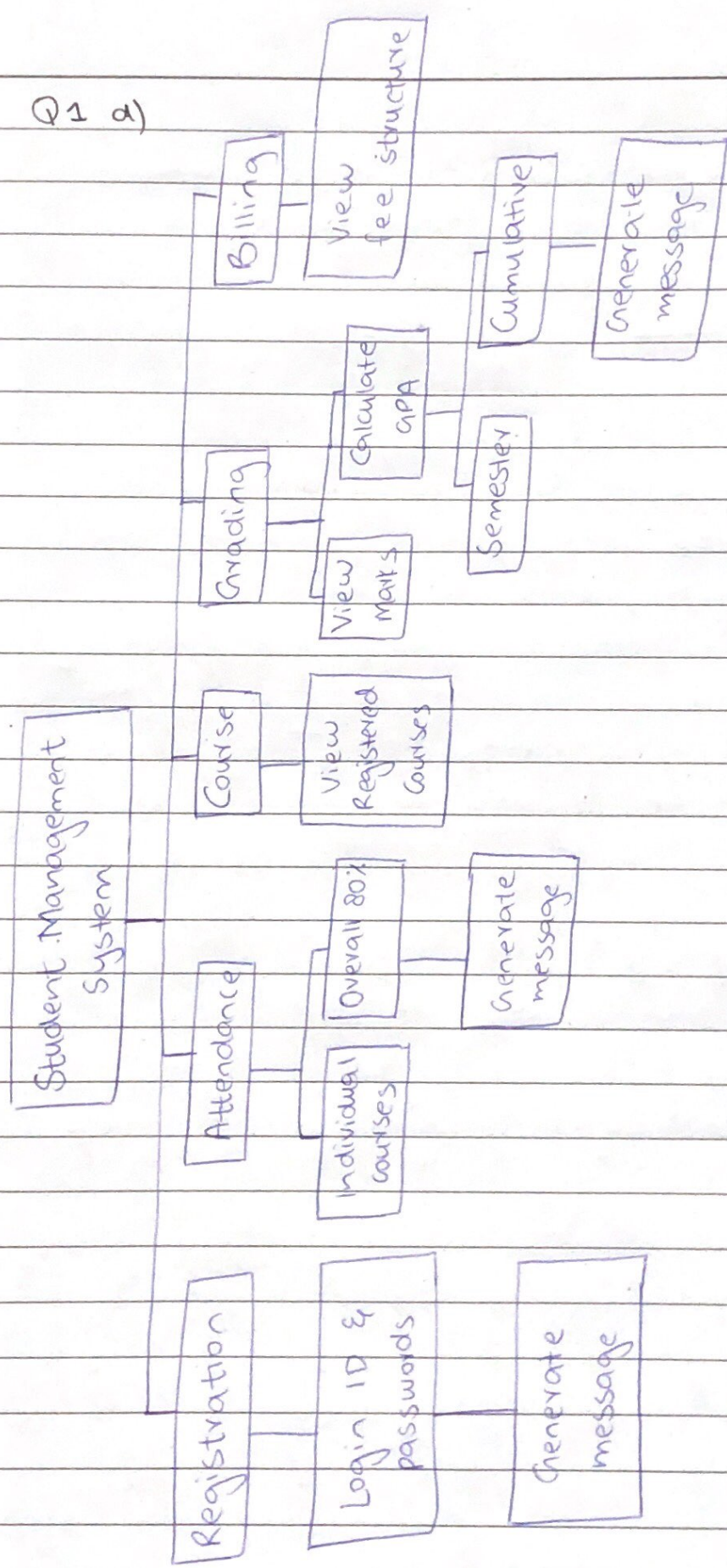


Q1.

- a) Student Management System is an educational platform to facilitate students into viewing their attendances, marks, fees, their registered courses, their GPA. To provide them with ~~updat~~ quick updates ~~if~~ on addition of marks.
- b) The goal of this project is for students to enter their usernames and passwords. When correctly inputted, the student would be given options for viewing like keeping track of their attendance subject wise, viewing marks in registered courses, calculating and viewing their semester GPA as well as cumulative GPA. <sup>Also view their fees</sup> They will be provided with appropriate messages or warnings throughout the project.
- c) The project scope would include students to manage their administrative, academic and financial activities. The project would provide the functionalities. It would also provide system security and privacy requirements.

Q1 a)

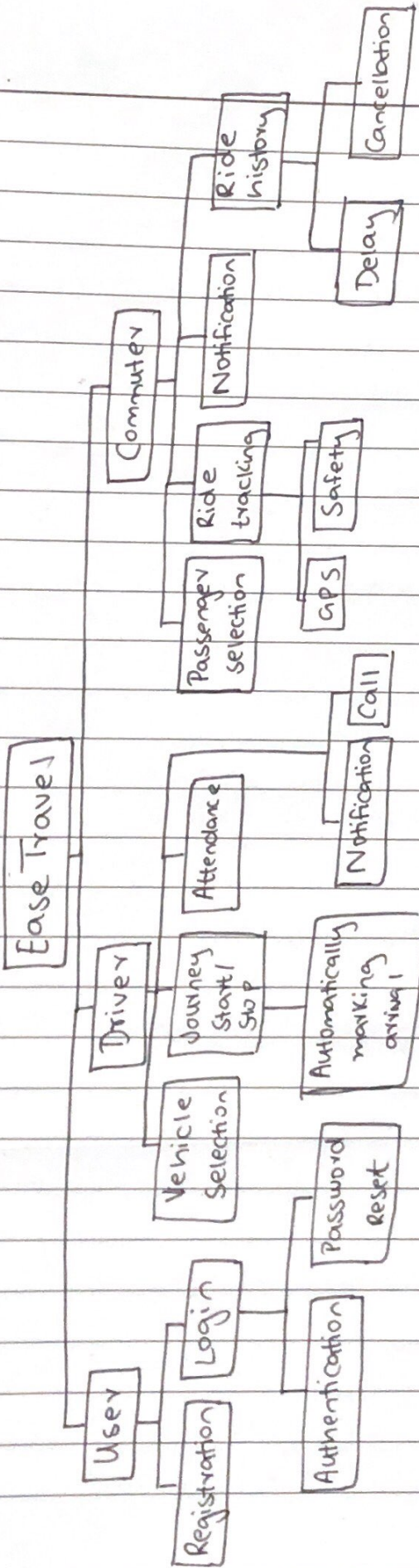




Q2.

Date:

M T W T F S S



Q3.

Date:

M T W T F S

$$a) \text{ weighted estimate} = \frac{P + O + (4 \times B)}{6}$$

$$Ali = \frac{87 + 62 + 4(70)}{6} = 70.17$$

$$Zain = \frac{91 + 72 + 4(80)}{6} = 78.17$$

$$Shan = \frac{88 + 50 + 4(70)}{6} = 66$$

$$Hassan = \frac{97 + 88 + 4(95)}{6} = 92.33$$

b) Average joint estimate

$$\frac{70.17 + 78.17 + 66 + 92.33}{4} = 76.67$$

c) 95% confidence interval

$$\text{confidence interval} = \text{average joint estimate} \pm 1.96 (sd)$$

$$sd = \sqrt{\frac{\sum (WE - AE)^2}{(n-1)}} = \sqrt{\frac{\sum (70.17 - 76.67)^2 + (78.17 - 76.67)^2 + (66 - 76.67)^2 + (92.33 - 76.67)^2}{(4-1)}}$$

$$= \sqrt{\frac{(70.17 - 76.67)^2 + (78.17 - 76.67)^2 + (66 - 76.67)^2 + (92.33 - 76.67)^2}{(3)}}$$

$$= 8.63$$

$$CI = 76.67 \pm (1.96 \times 8.63) = (59.85, 93.49)$$