

18DCS007

6CSE1 - BATCH A

RUDRA BARAD

SUBJECT - SE

8000870101

DATE - 26/04/21

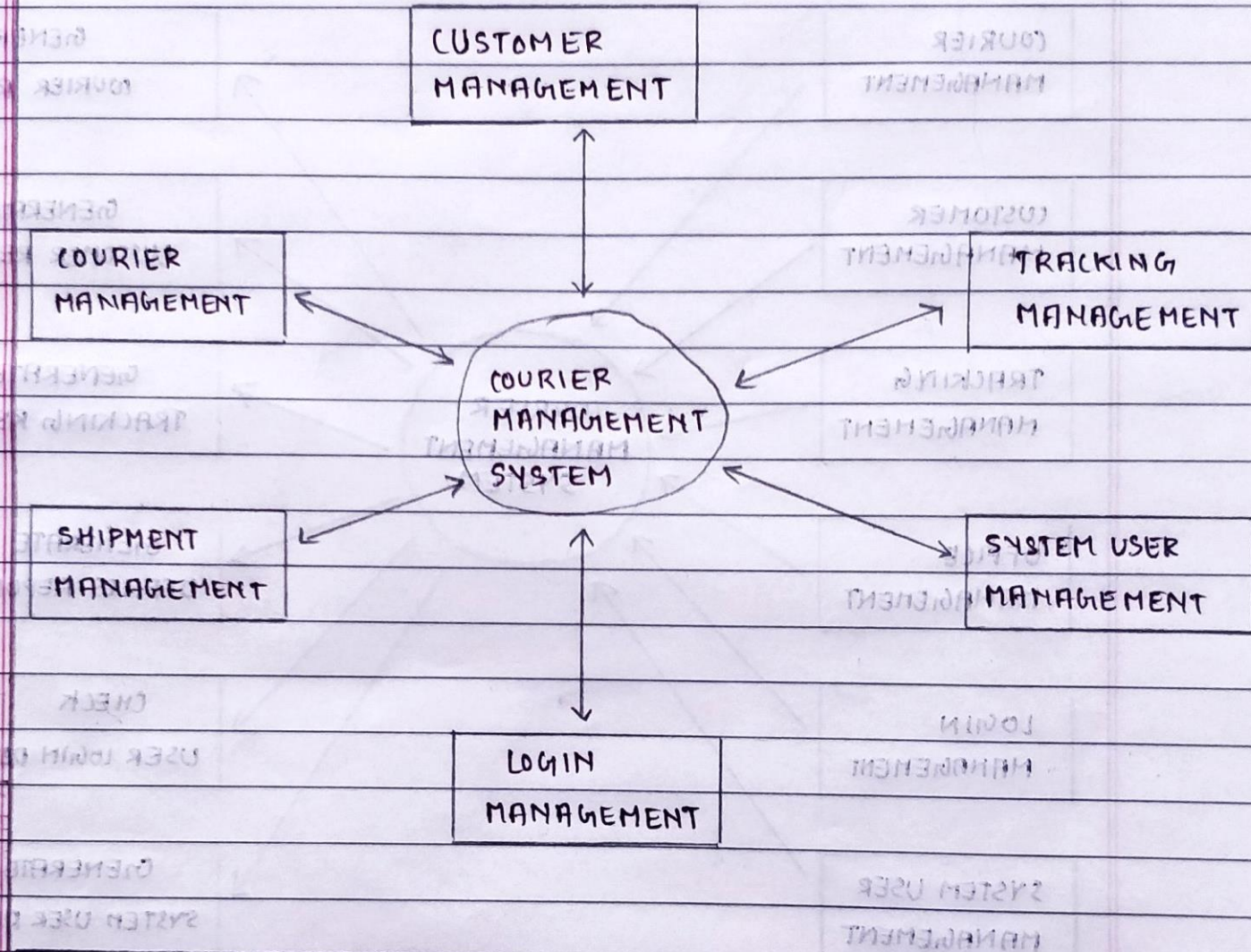
Miracle

Page

Date

(1)

Q1. ZERO LEVEL DFD - COURIER COMPANY WEB PORTAL



2

18DCS007

ECSET - BATCH A

SUBJECT - SE

DATE - 26/04/21

18DCS007

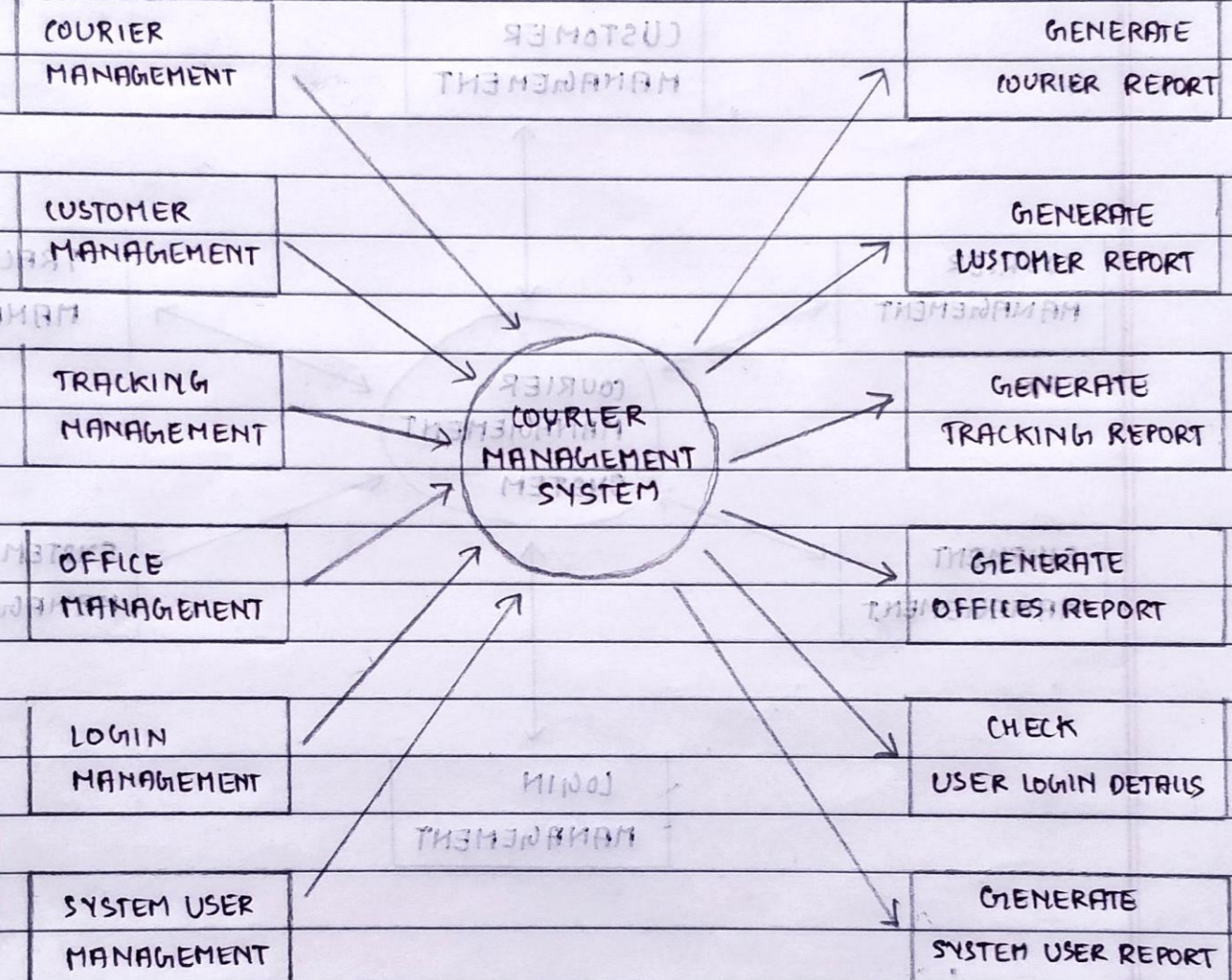
Page
Date

0000800101

1

→

FIRST LEVEL DFD FOR COURIER COMPANY WEB PORTAL



3

18DC5007

Miracle

Page

Date

Q2. LOCOMO MODEL

(1) ORGANIC : a_1 a_2 b_1 b_2

$$2.4 (1.05)^{0.38} = 2.5173 \quad 0.38$$

$$(806)^{0.38} = 2.2 (806)^{0.38}$$

$$\begin{aligned} \rightarrow \text{ESTIMATED EFFORT} &= 2.4 (\text{KLOC})^{1.05} \text{ PM} \\ &= 2.4 (806)^{1.05} \text{ PM} \\ &= 2.4 (11263.294) \text{ PM} \\ &= 2703.105 \text{ PM (approx)} \end{aligned}$$

$$\begin{aligned} \rightarrow \text{DEVELOPMENT TIME} &= 2.5 (2703.105)^{0.38} \text{ months} \\ &= 2.5 (20.14) \text{ months} \\ &= 50.35 \text{ months (approx)} \end{aligned}$$

$$\begin{aligned} \rightarrow \text{AVG STAFF SIZE} &= \frac{\text{EFFORT}}{\text{DEV. TIME}} \\ &= \frac{2703.105}{50.35} \\ &= 53.68 \text{ persons} \end{aligned}$$

$$\begin{aligned} \rightarrow \text{PRODUCTIVITY} &= \frac{\text{KLOC}}{\text{KLOC/PM}} \\ &= \frac{806}{2703.105} \text{ KLOC/PM} \\ &= 0.298 \text{ KLOC/PM (approx)} \end{aligned}$$

(4)

18DCS007

Miracle

Page

Date

3

(ii) EMBEDDED :

a_1	a_2	b_1	b_2
3.6	1.2	2.5	0.32

$$\begin{aligned} \rightarrow \text{ESTIMATED EFFORT} &= 3.6(KLOC)^{1.20} \text{ PM} \\ &= 3.6(806)^{1.2} \text{ PM} \end{aligned}$$

$$= 11063.80 \text{ PM approx}$$

 $\rightarrow \text{DEVELOPMENT TIME (MONTHS)}$

$$T_{dev} = 2.5(\text{effort})^{0.32}$$

$$= 2.5(11063.8)^{0.32} \text{ months}$$

$$= 49.202 \text{ months approx}$$

$$= 49.202 \text{ months approx}$$

 $\rightarrow \text{AVG STAFF SIZE} = \frac{\text{EFFORT}}{\text{DEV. TIME}}$

$$= \frac{11063.80}{49.202}$$

$$= 224.86 \text{ PERSONS}$$

$$= 224.86 \text{ PERSONS}$$

$$= 224.86 \text{ PERSONS}$$

 $\rightarrow \text{PRODUCTIVITY} = \frac{KLOC}{KLOC/PM}$

$$= \frac{806}{KLOC/PM}$$

$$= \frac{11063.80}{KLOC/PM}$$

$$= 0.07285 \text{ KLOC/PM}$$

$$= 0.07285 \text{ KLOC/PM}$$

$$= 0.07285 \text{ KLOC/PM}$$

$$= 0.07285 \text{ KLOC/PM}$$

$$= 0.07285 \text{ KLOC/PM}$$