Cost analysis is done by COCOMO Model

- Taking software project as organic type as team size is adequately small, the problem is well understood and has been solved in the past and also team members have nominal experience regarding the problem.
- a, b, c and d are constants for organic type system and the corresponding values are shown below:

Values			
a	b	c	d
2.4	1.05	2.5	0.38

- KLOC- Kilo Lines of Codes is the estimated size of the software product.
- EAF - Effort Adjustment Factor. The factors and the corresponding values for developing this project are shown below, considering the values are high for organic type system below:

Factors	Values
Software reliability(f1)	1.0
Application Database(f2)	1.0
Product complexity(f3)	1.0
Runtime Performance(f4)	1.0
Memory Constrints(f5)	1.0
Volatility of Virtual Machine(f6)	1.0
Turnaround time(f7)	1.0
Analyst capability(f8)	1.0
Application experience(f9)	1.13
S/w Engineer capability(f10)	1.0
Virtual machine experience(f11)	1.0
Programming language experience(f12)	1.07
Application of s/w engineering methods(f13)	1.0
Use of software tools(f14)	1.0
Required development schedule(f15)	1.0

COCOMO 1

Here LOC = 2000

Therefore KLOC = 2000/1000 = 2

For Organic:

Effort:

$a \times (KLOC)^b$ PM

$= 2.4 \times 2^{1.05}$ PM

$= 4.969271$ PM

Development Time:

$c \times (Effort)^d$ Months

$= 2.5 \times (4.969271)^{0.38}$ Months

$= 4.5976$ Months

≈ 5 Months

COCOMO 2:

Effort Adjustment Factor (EAF):

$= f1 \times f2 \times f3 \times f4 \times f5 \times f6 \times f7 \times f8 \times f9 \times f10 \times f11 \times f12 \times f13 \times f14 \times f15$

$= 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.13 \times 1.0 \times 1.0 \times 1.07 \times 1.0 \times 1.0 \times 1.0$

$= 1.2091$

Effort:

$= 3.2 \times (KLOC)^{1.05} \times EAF$ PM

$= 3.2 \times (2)^{1.05} \times 1.2091$ PM

$= 8.0111$ PM