**Problem 1:**

A project team has a project to build a software system with a total budget of $1,500,000 dollars. The project is scheduled to be completed in 50 weeks and braked down into 2 tasks/ business day. (working weekly days are Monday to Friday)

After 3 weeks, 20 tasks were completed and the total cost was $85,000.

1. Find the cost and schedule variances.  
   Planned Value = Planned Completion \* BAC = 6 % \* 1500000 = 90000

Earned Value = Actual Completion \* BAC = 4 % \* 1500000 = 60000

Cost Variance = EV – AC = 60000 – 85000 = -15000

Schedule Variance = EV – PV = 60000 – 90000 = - 30000

1. Calculate the estimated cost and time to complete the project.  
   CPI = EV/AC = 60000 / 85000 = 0.706

ECAC = TBC/CPI = 1500000 / 0.706 = 2124645.9

**Problem 2:**

You have a project to install Microsoft Windows 10 on all the machines at the local hospital of 8 departments, total of 600 computers. The project plan is to complete 100 computers /day. The budgeted cost for each computer is $90.

After day 1, 70 computers were completed and the total cost was $ $12,500 (extra resources were needed).

1. Find the cost and schedule variances.  
   Planned Value = Planned Completion \* BAC = 16.67 % \* 54000 = 9001.8

Earned Value = Actual Completion \* BAC = 11.67 % \* 54000 = 6301.8

Cost Variance = EV – AC = 6301.8 – 12500 = - 5698.2

Schedule Variance = EV – PV = 6301.8 – 9001.8 = - 2700

1. Calculate the estimated cost and time to complete the project.  
   CPI = EV/AC = 6301.8 / 12500 = 0.504

ECAC = TBC/CPI = 54000 / 0.504 = 107142.9