QUESTION 1:

Jack just had his 28th birthday on July 31, 2015. He plans to purchase a house for $750,000 in 10 years (10 years after the 28th birthday) with a 30% down payment. His next monthly pay check is $3,000 and is expected to grow 0.2% per month after that. Jack is able to achieve a 4% APR on his investment, compounded quarterly.

a) What is the effective annual rate (EAR) of return on Jack's investment?

b) What is the effective rate per month that Jack earns on his monthly savings?

c) What is the present value (as of July 31, 2015) of the down payment that Jack needs to have ready in 10 years?

d) Jack would like to save for his down payment from the end of this month (i.e. the first deposit into his savings account will be on August 30, 2015). Assuming the amount of money that Jack saves each month will grow at the same rate as his income growth (i.e. 0.2% per month), how much will he need to deposit into his savings account in the first month, and how much in the second month?

e) What percentage of his monthly pay check will he need to deposit in the first month? And in the 29th month?

QUESTION 2:

Y Corp. is considering two mutually exclusive projects: Project A and Project B. The expected cash flows of project A are summarized as follows: (ignore taxes)

Year	Revenue	Maintenance Expense	Net Cash Flow