Description Reducing Risk with Options In this assignment you are requested to adopt different option strategies to reduce their investment risk in order to optimise the profits generated from their investment projects. In a nutshell this assessment is to teach students how to reduce/hedge risk with options. Details of the task Background: In this assignment you work as a junior analyst at Carson Company and you are assigned to form options strategies in relation to the stock of IBM Corporation (IBM), a software company. In these two projects, you will give advice and data analysis to one of the executives at Carson Company.

In this project, you will suppose it is on 1 January 2019, and you will form trading strategies based on information available up to 1 January 2019. Afterwards, you will jump forward to 1 January 2020, and assess the profit from your options strategies, based on the stock price at this later date. In your answer, use European options on non-dividend-paying stock. Assume that the estimated volatility of IBM per annum is calculated as 30.5% (or 0.305). The IBM stock price on 1 January 2019 is 2370 pence. The 12-month sterling rate for LIBOR on 1 January 2019 is 1.5% (or 0.015)Reducing Risk with Options In this assignment you are requested to adopt different option strategies to reduce their investment risk in order to optimise the profits generated from their investment projects. In a nutshell this assessment is to teach students how to reduce/hedge risk with options. Details of the task Background:

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Student is required to understand the mechanisms of using options to hedge risk based on the circumstances set in the project. For the first question of the project, student will need to devise relevant options strategies for the situations described. Students will therefore be required to calculate the price of the required call and put options, and of the overall strategy. Students will find it useful to calculate by hand or Excel the prices of the options using the Black—Scholes—Merton model the in the first instance. For sake of simplicity, use European options on nondividend-paying stock. For each option strategy they should explain carefully what the strategy is attempting to achieve, including an indication, in general terms, of what the payoffs from the strategy might be (in terms of stock price decreases). They should base their analysis on the information provided up to 1 January 2019, form strategies for the year to 1 January 2020. They do not need to conduct additional research on IBM to write your assignment. They should state the initial payments or receipts in respect of each strategy.