

**ΕΘΝΙΚΟ ΚΑΙ ΚΑΠΟΔΙΣΤΡΙΑΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ ΤΜΗΜΑ ΟΙΚΟΝΟΜΙΚΩΝ ΕΠΙΣΤΗΜΩΝ**

ΠΡΟΓΡΑΜΜΑ ΜΕΤΑΠΤΥΧΙΑΚΩΝ ΣΠΟΥΔΩΝ «ΕΦΑΡΜΟΣΜΕΝΗΣ ΟΙΚΟΝΟΜΙΚΗΣ ΚΑΙ ΧΡΗΜΑΤΟΟΙΚΟΝΟΜΙΚΗΣ»

ΚΑΤΕΥΘΥΝΣΗ

## «ΔΙΟΙΚΗΣΗ, ΑΝΑΛΥΤΙΚΗ ΚΑΙ ΠΛΗΡΟΦΟΡΙΑΚΑ ΣΥΣΤΗΜΑΤΑ ΕΠΙΧΕΙΡΗΣΕΩΝ»

Master of Science in

Business Administration, Analytics and Information Systems

**Data Analysis**

**Assignment 5**

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Αθήνα 11/12/2024

Question 2

* The regression line is : **mortality = -21.7946906 + 2.357694533 x tempetature**
* That means that the morality rate is positively related t temperature, and 1 degree increase in temperature , leads to 2.36% increase mortality rate.
* R square is 0.765370227, which is quite close 1, so that means that most of the data variance is explained , and the temperature and mortality rates are closely related.
* The residuals don’t show a particular pattern , as they are randomized. However, we can see that they are relatively equally distributed around 0. That confirms the theoretical claim that residuals follow normal distribution (with mean=0 and stdev = MSS).
* H0: b=0

H1: b>0

So since 6.74 > 1.76 we **reject H0 ,**  meaning that the data are significantly correlated

* The conclusion is that temperature is a significant factor to mortality rates . So the analyst is able use this information , to predict the mortality rate for new samples.