



**Zarqa University
Faculty of Nursing**

**Zarqa University
Faculty of Graduate Studies
Nursing Department
Data Management and Statistical Analysis
Semester: 2nd Semester
Assignment Number 2 (10%)**

**Date: 20/04/2026
Instructor:
Dr. Anas Khalifeh**

**Master Degree in Nursing
Administration**

Data Entry, Create SPSS Dataset, and Conduct Descriptive Statistics

This assignment aims to provide experience in developing descriptive statistics. Start with creating the SPSS dataset, after that answer the following questions. The assignment will be submitted through the ZU e-learning system (Moodle) within the time frame.

Paper Details:

Open: Monday, April 20, 2026

Due date and time: Friday, April 24, 2026, at 23:59 (11:59 PM)

Accepted format: PDF document only.

Task weight: 10 Marks.

Task individual.

Case Scenario: Workforce Profile Analysis of Nurses in Hospitals

As part of your research project, you conducted a descriptive, cross-sectional study to explore the demographic and professional characteristics of nurses working in both public and private hospitals. A total of **30 nurses** participated in the study, selected from four hospitals. This data includes:

- **Age:** Each participant's age in years.
- **Gender:** "Male" or "Female".
- **Place of Work:** Prince Hamzah Hospital, Al Basheer Hospitals, Abdali Medical Center, and Istishari Hospital.
- **Experience Year:** The years of experience for each participant, indicating their overall experience level.
- **Monthly Income:** "501-750," "751-1000," and "More than 1000" Jordanian Dinars (JOD).

No. Participants	Age	Gender	Place of Work	Experience Year	Monthly Income
1	44	Female	Istishari hospital	18	751-1000
2	36	Male	Prince Hamzeh Hospital	15	501-750
3	29	Female	Abdali Medical Center	9	More than 1000
4	29	Female	Abdali Medical Center	2	751-1000
5	28	Female	Istishari hospital	6	751-1000
6	34	Female		4	751-1000
7	25	Female	Abdali Medical Center	7	More than 1000
8	24	Female	Abdali Medical Center	3	More than 1000
9	28	Female	Prince Hamzeh Hospital	6	4
10	37	Male	Istishari hospital	14	More than 1000
11	35	Female	Abdali Medical Center	5	More than 1000
12	37	Male	Prince Hamzeh Hospital	1	More than 1000
13	32	Female	Prince Hamzeh Hospital	8	751-1000
14	41	Male	Prince Hamzeh Hospital	18	More than 1000
15	35	Female	Prince Hamzeh Hospital	13	
16	34	Female	Prince Hamzeh Hospital	14	501-750
17	43	Female	Istishari hospital	18	501-750
18		3	Istishari hospital	18	More than 1000
19	39	Male	Istishari hospital	3	More than 1000
20	31	Female	Al Basheer Hospitals	9	751-1000
21	44	Female	Al Basheer Hospitals	35	More than 1000
22	35	Male	Istishari hospital	15	751-1000
23	32	Female	Prince Hamzeh Hospital	8	More than 1000
24	37	Male	Istishari hospital	7	751-1000
25	31	Female	Istishari hospital	7	501-750
26	37	Male	Istishari hospital	10	501-750
27	25	Female	Istishari hospital	3	501-750
28	38	Male	Al Basheer Hospitals	15	More than 1000
29	33	Male	Al Basheer Hospitals	10	More than 1000
30	33	Female	Al Basheer Hospitals	13	More than 1000

Using the provided dataset of 30 nurses, **entry the data, create an SPSS data file, and perform the required statistical analyses.** Once the data is prepared, respond to the following questions in a clearly structured and professionally written report:

- 1) **Identify the Level of Measurement.** For each variable in the dataset, determine and specify its level of measurement. What is Level of Measurement for each variable? **(2 Mark)**
- 2) **Before starting descriptive statistics, check for errors, find, and correct errors of the data;** after that write a description about the problems you found (missing, wild code, or outlier) and how you cleaned and replaced the missing data? (Supported with numbers of the case and how remedies) and (Supported with normal distribution and boxplot) **(2 Marks).**

- 3) **After clean data, summarize the Demographic and Professional Characteristics of the Sample.** Conduct a comprehensive descriptive analysis with Tables as follows:
 - a. For all Ratio (Continuous/Quantitative) variables, calculate and report the Mean, Median, and Mode. **(2 Mark)**
 - b. Calculate the Range and Interquartile Range (IQR) for the same Ratio variables. **(2 Mark)**
 - c. For all nominal and ordinal (Categorical) variables, generate frequency tables that include frequencies and percentages. **(2 Mark)**
 - d. Provide a brief description under each table to summarize and interpret the findings. **(2 Mark)**
- 4) **Graphical Representation of Ratio (Continuous) Variables.** Display the Ratio variables using appropriate graphs. Provide a brief written summary explaining the Shape of the distribution. **(2 Mark)**
- 5) **Graphical Representation of Nominal and Ordinal (Categorical) Variables.** Display each Categorical variable using appropriate graphs. Provide a concise interpretation beneath each graph, describing the most and least common categories. **(2 Mark)**
- 6) **Explore the distribution of employees' Experience Year by drawing a boxplot.** Then determine if there is any outlier (determine the number of outlier cases shown in the graph). **(2 Mark)**
- 7) **Report and interpret the Skewness and Kurtosis values** for each variable Ratio (Continuous/Quantitative). Provide a brief written summary explaining the shape of the distribution and describe its direction (skewness and kurtosis). Report the Skewness and Kurtosis coefficient. Report the Fisher's Skewness and Kurtosis coefficient. **(2 Mark)**

NOTES

- Please submit file: PDF document with all answers, including tables and graphs, properly labeled and organized.
- Please don't forget to write a brief description about your results for each question.
- Submit by the specified due date. Any delay past the due date and time will lead to 2 marks deduction per 24 hours or part of the 24 hours.
- Submissions are accepted through Moodle only.
- ONLY the following format of the solution is accepted: PDF document.
- Do not use artificial intelligence (AI) tools to generate or assist in writing your responses.
- Do not copy from other students or submit assignments that are identical or substantially similar to those of your colleagues.