# Question 2 – Explanation of constraints, triggers, and indexes

## PROFESSIONAL

### Q2\_PROFESSIONAL\_PK

This constraint defines the table’s primary key. Thus, it cannot be null and must have unique values. This constraint also has the side effect of creating an index on the specified attribute.

### BI\_PROFESSIONAL

This trigger uses the PROFESSIONAL\_SEQ sequence to auto-generate incremental ID values for use in the primary key.

### PROFESSIONAL\_CK

This check constraint forces the password attribute to contain at least one number.

## PATIENT

### Q2\_PATIENT\_PK

This constraint defines the table’s primary key. Thus, it cannot be null and must have unique values. This constraint also has the side effect of creating an index on the specified attribute.

### BI\_PATIENT

This trigger uses the PATIENT\_SEQ sequence to auto-generate incremental ID values for use in the primary key.

### PATIENT\_FK

This constraint specifies a foreign key to the PROFESSIONAL table.

### PATIENT\_CK

This check constraint forces the password attribute to contain at least one number.

## DIAG\_METHOD

### Q2\_DIAG\_METHOD\_PK

This constraint defines the table’s primary key. Thus, it cannot be null and must have unique values. This constraint also has the side effect of creating an index on the specified attribute.

### Q2\_DIAG\_METHOD\_U

This constraint forces the CONDITION attribute to be unique. As such, it creates an index on this attribute.

### BI\_DIAG\_METHOD

This trigger uses the DIAG\_METHOD\_SEQ sequence to auto-generate incremental ID values for use in the primary key. The ID values are concatenated with the first three characters of the relevant CONDITION attribute.

## PATIENT\_DIAG\_METHOD

### Q2\_PATIENT\_DIAG\_METHOD\_PK

This constraint defines the table’s primary key. Thus, it cannot be null and must have unique values. This constraint also has the side effect of creating an index on the specified attribute.

### PATIENT\_DIAG\_METHOD\_FK1

This constraint specifies a foreign key to the PATIENT table.

### PATIENT\_DIAG\_METHOD\_FK2

This constraint specifies a foreign key to the DIAG\_METHOD table.

## DIAG\_DATA

### Q2\_DIAG\_DATA\_PK

This constraint defines the table’s primary key. Thus, it cannot be null and must have unique values. This constraint also has the side effect of creating an index on the specified attribute.

### BI\_DIAG\_DATA

This trigger uses the DIAG\_DATA\_SEQ sequence to auto-generate incremental ID values for use in the primary key.

### DIAG\_DATA\_FK1

This constraint specifies a foreign key to the DIAG\_METHOD table.

### DIAG\_DATA\_FK2

This constraint specifies a foreign key to the PATIENT table.