23 DIRECT AND DELAYED PROCESSING

Problem description

An application provides its users the opportunity to update an insurance group for those insured on the basis of region; e.g., regional theft insurance premiums. The application enables its users to assign a zip code series to a different insurance group by means of a screen. In this illustration, three functionally different situations are handled. Each situation shows how function point analysis should be carried out.

The update in the first situation takes place immediately after a zip code series has been entered. Then a new series can be entered. When the user is finished with the function and one or more insurance groups have been adjusted, the application prints a report of the transactions for verification purposes.

In the second situation, the user can enter one or more zip code series. The processing of the data is done at night. When the insurance groups have been adjusted, the application prints a report of the transactions for verification purposes. Once the zip code series have been entered, they can no longer be maintained.

In the third situation, the user can enter one or more zip code series. The application processes the data at night, after which it prints a report of the transactions for verification purposes. Now, however, the zip code series entered can still be changed or deleted after they have been entered, but before their nightly processing.

For each of the situations above, determine which functions should be identified. Does the transaction file with the zip code series in situation 2 and/or 3 count as an internal logical file?

23.1 Direct processing

Discussion

The main objective of this function is the adjustment of the insurance groups. The data that is saved is functionally permanent data. This means that an external input is present. The creation of the transaction report is inextricably bound to the function, and the report itself fulfills a functional requirement; i.e., it is necessary for verification purposes. The transaction report also crosses the application boundary. For these reasons, an external output is identified for the transaction report, even though the function is inextricably bound to the external input.

Solution

Count the following functions:

- One external input for entering and adjusting the insurance groups
- One external output for the transaction report

References to the standard

7.2.r and 8.2.p

23.2 Delayed processing

Discussion

The main objective of this function is the adjustment of the insurance groups. The data saved is functionally permanent data. This means that at least one external input is present. FPA considers the entering of the zip code series and the nightly processing of the data as delayed processing. It sees the nightly processing and the entering of the zip code series as a whole.

The zip code series temporarily saved cannot be maintained and are not permanent because the data no longer exists after being processed during the nightly processing. In other words, the data is "consumed". The zip code series therefore form a temporary dataset that cannot be considered an internal logical file.

The creation of the transaction report is inextricably bound to the nightly processing, and the report itself fulfills a functional requirement; i.e., it is necessary for verification purposes. The transaction report also crosses the application boundary. For these reasons, the transaction report is identified as an external output, even though the function is inextricably bound to the external input.

Solution

Count the following functions:

- One external input for entering the insurance groups and for the nightly adjustment of the insurance groups
- One external output for the transaction report

References to the standard

5.2.f, 7.2.r and 8.2.p

23.3 Delayed processing and maintenance

Discussion

This main objective of this function is the adjustment of the insurance groups. The data that is saved is functionally permanent data. This means that at least one external input is present. FPA considers the entering of the zip code series and the nightly processing of the data as delayed processing. It sees the nightly processing and the entering of the zip code series as a whole.

The zip code series stored can be maintained and therefore make up an internal logical file. Furthermore, two maintenance functions are identified: one for changing zip code series and one for deleting them.

The creation of the transaction report is inextricably bound to the nightly processing, and the report itself fulfills a functional requirement; i.e., it is necessary for verification purposes. The transaction report also crosses the application boundary. For these reasons, the transaction report is identified as an external output, even though the function is inextricably bound to the external input.

Solution

Count the following functions:

- One external input for the initial input of zip code series and the nightly processing together.
- One internal logical file for the transaction file containing zip code series.
- Two external inputs for the changing and deleting of the zip code series from the transaction file.
- One external output for the transaction report

References to the standard

5.2.f, 7.2.r and 8.2.p