19.1.5. `email.errors`: Exception and Defect classes

Source code: Lib/email/errors.py

The following exception classes are defined in the `email.errors` module:

exception `email.errors.`**`MessageError`**

This is the base class for all exceptions that the `email` package can raise. It is derived from the standard `Exception` class and defines no additional methods.

exception `email.errors.`**`MessageParseError`**

This is the base class for exceptions raised by the `Parser` class. It is derived from `MessageError`. This class is also used internally by the parser used by `headerregistry`.

exception `email.errors.`**`HeaderParseError`**

Raised under some error conditions when parsing the **RFC 5322** headers of a message, this class is derived from `MessageParseError`. The `set_boundary()` method will raise this error if the content type is unknown when the method is called. `Header` may raise this error for certain base64 decoding errors, and when an attempt is made to create a header that appears to contain an embedded header (that is, there is what is supposed to be a continuation line that has no leading whitespace and looks like a header).

exception `email.errors.`**`BoundaryError`**

Deprecated and no longer used.

exception `email.errors.`**`MultipartConversionError`**

Raised when a payload is added to a `Message` object using `add_payload()`, but the payload is already a scalar and the message's *Content-Type* main type is not either *multipart* or missing. `MultipartConversionError` multiply inherits from `MessageError` and the built-in `TypeError`.

Since `Message.add_payload()` is deprecated, this exception is rarely raised in practice. However the exception may also be raised if the `attach()` method is called on an instance of a class derived from `MIMENonMultipart` (e.g. `MIMEImage`).

Here is the list of the defects that the `FeedParser` can find while parsing messages. Note that the defects are added to the message where the problem was found, so for example, if a message nested inside a *multipart/alternative* had a malformed

header, that nested message object would have a defect, but the containing messages would not.

All defect classes are subclassed from `email.errors.MessageDefect`.

- `NoBoundaryInMultipartDefect` – A message claimed to be a multipart, but had no *boundary* parameter.
- `StartBoundaryNotFoundDefect` – The start boundary claimed in the *Content-Type* header was never found.
- `CloseBoundaryNotFoundDefect` – A start boundary was found, but no corresponding close boundary was ever found.

  New in version 3.3.
- `FirstHeaderLineIsContinuationDefect` – The message had a continuation line as its first header line.
- `MisplacedEnvelopeHeaderDefect` - A "Unix From" header was found in the middle of a header block.
- `MissingHeaderBodySeparatorDefect` - A line was found while parsing headers that had no leading white space but contained no ':'. Parsing continues assuming that the line represents the first line of the body.

  New in version 3.3.
- `MalformedHeaderDefect` – A header was found that was missing a colon, or was otherwise malformed.

  Deprecated since version 3.3: This defect has not been used for several Python versions.
- `MultipartInvariantViolationDefect` – A message claimed to be a *multipart*, but no subparts were found. Note that when a message has this defect, its `is_multipart()` method may return false even though its content type claims to be *multipart*.
- `InvalidBase64PaddingDefect` – When decoding a block of base64 encoded bytes, the padding was not correct. Enough padding is added to perform the decode, but the resulting decoded bytes may be invalid.
- `InvalidBase64CharactersDefect` – When decoding a block of base64 encoded bytes, characters outside the base64 alphabet were encountered. The characters are ignored, but the resulting decoded bytes may be invalid.

- `InvalidBase64LengthDefect` – When decoding a block of base64 encoded bytes, the number of non-padding base64 characters was invalid (1 more than a multiple of 4). The encoded block was kept as-is.