:mod:`stringprep` --- Internet String Preparation

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 1); *backlink***
>
> Unknown interpreted text role "mod".

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 4)**
>
> Unknown directive type "module".
>
> ```
> .. module:: stringprep
>    :synopsis: String preparation, as per RFC 3453
> ```

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 7)**
>
> Unknown directive type "moduleauthor".
>
> ```
> .. moduleauthor:: Martin v. LÃ¶wis <martin@v.loewis.de>
> ```

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 8)**
>
> Unknown directive type "sectionauthor".
>
> ```
> .. sectionauthor:: Martin v. LÃ¶wis <martin@v.loewis.de>
> ```

Source code: :source:`Lib/stringprep.py`

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 10); *backlink***
>
> Unknown interpreted text role "source".

When identifying things (such as host names) in the internet, it is often necessary to compare such identifications for "equality". Exactly how this comparison is executed may depend on the application domain, e.g. whether it should be case-insensitive or not. It may be also necessary to restrict the possible identifications, to allow only identifications consisting of "printable" characters.

RFC 3454 defines a procedure for "preparing" Unicode strings in internet protocols. Before passing strings onto the wire, they are processed with the preparation procedure, after which they have a certain normalized form. The RFC defines a set of tables, which can be combined into profiles. Each profile must define which tables it uses, and what other optional parts of the `stringprep` procedure are part of the profile. One example of a `stringprep` profile is `nameprep`, which is used for internationalized domain names.

The module :mod:`stringprep` only exposes the tables from RFC 3454. As these tables would be very large to represent them as dictionaries or lists, the module uses the Unicode character database internally. The module source code itself was generated using the `mkstringprep.py` utility.

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 29); *backlink***
>
> Unknown interpreted text role "mod".

As a result, these tables are exposed as functions, not as data structures. There are two kinds of tables in the RFC: sets and mappings. For a set, :mod:`stringprep` provides the "characteristic function", i.e. a function that returns `True` if the parameter is part of the set. For mappings, it provides the mapping function: given the key, it returns the associated value. Below is a list of all functions available in the module.

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 34); *backlink***

Unknown interpreted text role "mod".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]stringprep.rst`, line 42)

Unknown directive type "function".

```
.. function:: in_table_a1(code)

   Determine whether *code* is in tableA.1 (Unassigned code points in Unicode 3.2).
```

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Unknown directive type "function".

```
.. function:: in_table_b1(code)

   Determine whether *code* is in tableB.1 (Commonly mapped to nothing).
```

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Unknown directive type "function".

```
.. function:: map_table_b2(code)

   Return the mapped value for *code* according to tableB.2 (Mapping for
   case-folding used with NFKC).
```

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Unknown directive type "function".

```
.. function:: map_table_b3(code)

   Return the mapped value for *code* according to tableB.3 (Mapping for
   case-folding used with no normalization).
```

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Unknown directive type "function".

```
.. function:: in_table_c11(code)

   Determine whether *code* is in tableC.1.1  (ASCII space characters).
```

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Unknown directive type "function".

```
.. function:: in_table_c12(code)

   Determine whether *code* is in tableC.1.2  (Non-ASCII space characters).
```

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Unknown directive type "function".

```
.. function:: in_table_c11_c12(code)

   Determine whether *code* is in tableC.1  (Space characters, union of C.1.1 and
   C.1.2).
```

```
.. function:: in_table_c21(code)

   Determine whether *code* is in tableC.2.1  (ASCII control characters).
```

```
.. function:: in_table_c22(code)

   Determine whether *code* is in tableC.2.2  (Non-ASCII control characters).
```

```
.. function:: in_table_c21_c22(code)

   Determine whether *code* is in tableC.2  (Control characters, union of C.2.1 and
   C.2.2).
```

```
.. function:: in_table_c3(code)

   Determine whether *code* is in tableC.3  (Private use).
```

```
.. function:: in_table_c4(code)

   Determine whether *code* is in tableC.4  (Non-character code points).
```

```
.. function:: in_table_c5(code)

   Determine whether *code* is in tableC.5  (Surrogate codes).
```

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`main\Doc\library\[cpython-main][Doc][library]stringprep.rst`**, line 111)**

Unknown directive type "function".

```
.. function:: in_table_c6(code)

   Determine whether *code* is in tableC.6  (Inappropriate for plain text).
```

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`main\Doc\library\[cpython-main][Doc][library]stringprep.rst`**, line 116)**

Unknown directive type "function".

```
.. function:: in_table_c7(code)

   Determine whether *code* is in tableC.7  (Inappropriate for canonical
   representation).
```

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`main\Doc\library\[cpython-main][Doc][library]stringprep.rst`**, line 122)**

Unknown directive type "function".

```
.. function:: in_table_c8(code)

   Determine whether *code* is in tableC.8  (Change display properties or are
   deprecated).
```

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`main\Doc\library\[cpython-main][Doc][library]stringprep.rst`**, line 128)**

Unknown directive type "function".

```
.. function:: in_table_c9(code)

   Determine whether *code* is in tableC.9  (Tagging characters).
```

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`main\Doc\library\[cpython-main][Doc][library]stringprep.rst`**, line 133)**

Unknown directive type "function".

```
.. function:: in_table_d1(code)

   Determine whether *code* is in tableD.1  (Characters with bidirectional property
   "R" or "AL").
```

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`main\Doc\library\[cpython-main][Doc][library]stringprep.rst`**, line 139)**

Unknown directive type "function".

```
.. function:: in_table_d2(code)

   Determine whether *code* is in tableD.2  (Characters with bidirectional property
   "L").
```