XQuery, Part IV
User-Defined Functions

Function Declarations

User defined functions in XQuery are declared as follows:

```
declare function <namespace>:<name> ( <ArgumentList>) as <ReturnType>
  {
  <FunctionBody>
  };
```

Here,

- `<namespace>:<name>` is the full name of the function. Use `local` as namespace to produce a local function.

- `<ArgumentList>` consists of zero or more argument declarations. Each declaration has the following format:

    `<VarName> as <Type>`

  `<Type>` is either a built-in atomic type (e.g., `xs:decimal`), or an item (`item()`) or a node (`node()`, `element()`, etc...). Type modifiers `+, ?, *` are allowed to indicate a sequence of one or more, zero or one and zero or more items respectively.

  Same rules apply to `<ReturnType>`.

- `<FunctionBody>` is an XQuery expression which can use function arguments as variables and which must return a value of the designated return type.

Example.

```
declare function local:create-pair($first as (), $second as element())
        as node()
{
  return
      <pair>
         {$first,
          $second}
      </pair>
};
```