(continued from previous page)

```
Custom_new(PyTypeObject *type, PyObject *args, PyObject *kwds)
   CustomObject *self;
    self = (CustomObject *) type->tp_alloc(type, 0);
    if (self != NULL) {
       self->first = PyUnicode_FromString("");
       if (self->first == NULL) {
           Py_DECREF(self);
           return NULL;
        self->last = PyUnicode_FromString("");
        if (self->last == NULL) {
           Py_DECREF(self);
            return NULL;
        self->number = 0;
   return (PyObject *) self;
static int
Custom_init(CustomObject *self, PyObject *args, PyObject *kwds)
    static char *kwlist[] = {"first", "last", "number", NULL};
   PyObject *first = NULL, *last = NULL, *tmp;
   if (!PyArg_ParseTupleAndKeywords(args, kwds, "|OOi", kwlist,
                                     &first, &last,
                                     &self->number))
       return -1;
    if (first) {
       tmp = self->first;
       Py_INCREF(first);
       self->first = first;
       Py_XDECREF(tmp);
   if (last) {
       tmp = self->last;
       Py_INCREF(last);
       self->last = last;
       Py_XDECREF(tmp);
   return 0;
static PyMemberDef Custom_members[] = {
   {"first", T_OBJECT_EX, offsetof(CustomObject, first), 0,
    "first name"},
   {"last", T_OBJECT_EX, offsetof(CustomObject, last), 0,
     "last name"},
    {"number", T_INT, offsetof(CustomObject, number), 0,
     "custom number"},
    {NULL} /* Sentinel */
};
static PyObject *
Custom_name(CustomObject *self, PyObject *Py_UNUSED(ignored))
    if (self->first == NULL) {
       PyErr_SetString(PyExc_AttributeError, "first");
```

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