many2one and one2many relationship

目录

[Create many2one and one2many relationship in OpenERP 2](#__RefHeading___Toc137_8451703)

[Odoo10开发教程三（模型关联） 3](#__RefHeading___Toc139_8451703)

# **Create** **many2one and one2many relationship in OpenERP**

In OpenERP we can create many2one and one2many relationships between models very easily by creating many2one and one2many fields. You just need to declare a field in **\_columns** and then using this field normally in the rest programming and views as we normally do.

I created a small module to explain called hospital, I have two objects **patient** and **doctor**. To establish relationship between these two entities or objects, create **doctor\_id** field in patient model as many2one, and patient\_id as one2many in doctor model.

The relationship can be explained as one doctor with many patients and many patients going to a single doctor.

Now create a many2one field as:

in **class patient(osv.osv):**

'doctor\_id':fields.many2one('doctor','Doctor'),

and in **class doctor(osv.osv):**

'patient\_id':fields.one2many('patient','doctor\_id',),

**Basic syntax for declaring a many2one field:**

fields.many2one( 'object.name', 'field name', optional parameters)

where first parameter is the model to which the relation is to be created, and field name is the name for the field.

**declaring a one2many field:**

fields.one2many( 'other.object.name', 'Field relation id', 'Fieldname', optional parameter)

**Optional parameters:**

1. required = true/false: means a mandatory field,
2. readonly = true/flase: means not editable field,
3. invisible = true/false: to be visible in the view or not, 4 states: these can be defined as you wish,.

# **Odoo10开发教程三（模型关联）**

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## 模型关联

一个模型中的记录可能关联到另一个模型中的记录。例如，销售订单记录会关联到一个包含客户数据的客户记录中；同时销售订单记录也会关联到销售订单明细记录。

练习建立一个授课模型  
在开放学院模块中，我们考虑一个授课模型：一个授课是在给定的时间中对给定的受众教授指定的课程。为授课建立模型，授课包括名称、开始时间、持续时间和席位数。添加操作和菜单项来显示新的模型。

* 在openacademy/models/models.py文件中创建Session类
* 在openacademy/view/openacademy.xml文件中添加访问授课对象的菜单和操作

openacademy/models.py

name = fields.Char(string="Title", required=True)

description = fields.Text()

class Session(models.Model):

\_name = 'openacademy.session'

name = fields.Char(required=True)

start\_date = fields.Date()

duration = fields.Float(digits=(6, 2), help="Duration in days")

seats = fields.Integer(string="Number of seats")

openacademy/views/openacademy.xml

<!-- Full id location:

action="openacademy.course\_list\_action"

It is not required when it is the same module -->

<!-- session form view -->

<record model="ir.ui.view" id="session\_form\_view">

<field name="name">session.form</field>

<field name="model">openacademy.session</field>

<field name="arch" type="xml">

<form string="Session Form">

<sheet>

<group>

<field name="name"/>

<field name="start\_date"/>

<field name="duration"/>

<field name="seats"/>

</group>

</sheet>

</form>

</field>

</record>

<record model="ir.actions.act\_window" id="session\_list\_action">

<field name="name">Sessions</field>

<field name="res\_model">openacademy.session</field>

<field name="view\_type">form</field>

<field name="view\_mode">tree,form</field>

</record>

<menuitem id="session\_menu" name="Sessions"

parent="openacademy\_menu"

action="session\_list\_action"/>

</data>

</odoo>

注意  
digits=(6,2)指定浮点数的精度：6是数字的总和，而2是小数位长度，这同时表明整数位的最大长度是4

## 关联字段

关联字段链接同一模型（不同层次结构）或者不同模型之间的记录。关联字段有三种类型：  
Many2one(other\_model, ondelete='set null')  
一个链接到其它对象的简单示例是这样的：

print foo.other\_id.name

One2many(other\_model, related\_field)  
这是一个虚拟的关联，是Many2one的逆，One2many作为记录的容器，访问它将返回一个记录集（也可能是一个空记录集）：

for other in foo.other\_ids:

print other.name

警告

因为One2many是一个虚拟关联，所以必须有一个Many2one字段存在于other\_model,其名称也必须是related\_field

Many2many(other\_model)  
双向多对多关联，一方的任一记录可以与另一方的任意数量记录关联。作为记录的容器，访问它也可能导致返回空记录集

for other in foo.other\_ids:

print other.name

练习Many2one关联  
编辑Course和Session模型以反映他们与其它模型的关联：

* 课程有一个负责的用户；该字段的值是内置模型res.users的记录
* 一个授课有一个教师；该字段的值是内置模型res.partner的记录
* 授课与课程相关；该字段的值是openacademy.course模型的记录，并且是必填项
* 在模型中添加Many2one关联，并在视图显示

openacademy/models.py

name = fields.Char(string="Title", required=True)

description = fields.Text()

responsible\_id = fields.Many2one('res.users',

ondelete='set null', string="Responsible", index=True)

class Session(models.Model):

\_name = 'openacademy.session'

start\_date = fields.Date()

duration = fields.Float(digits=(6, 2), help="Duration in days")

seats = fields.Integer(string="Number of seats")

instructor\_id = fields.Many2one('res.partner', string="Instructor")

course\_id = fields.Many2one('openacademy.course',

ondelete='cascade', string="Course", required=True)

openacademy/views/openacademy.xml

<sheet>

<group>

<field name="name"/>

<field name="responsible\_id"/>

</group>

<notebook>

<page string="Description">

</field>

</record>

<!-- override the automatically generated list view for courses -->

<record model="ir.ui.view" id="course\_tree\_view">

<field name="name">course.tree</field>

<field name="model">openacademy.course</field>

<field name="arch" type="xml">

<tree string="Course Tree">

<field name="name"/>

<field name="responsible\_id"/>

</tree>

</field>

</record>

<!-- window action -->

<!--

The following tag is an action definition for a "window action",

<form string="Session Form">

<sheet>

<group>

<group string="General">

<field name="course\_id"/>

<field name="name"/>

<field name="instructor\_id"/>

</group>

<group string="Schedule">关联字段

<field name="start\_date"/>

<field name="duration"/>

<field name="seats"/>

</group>

</group>

</sheet>

</form>

</field>

</record>

<!-- session tree/list view -->

<record model="ir.ui.view" id="session\_tree\_view">

<field name="name">session.tree</field>

<field name="model">openacademy.session</field>

<field name="arch" type="xml">

<tree string="Session Tree">

<field name="name"/>

<field name="course\_id"/>

</tree>

</field>

</record>

<record model="ir.actions.act\_window" id="session\_list\_action">

<field name="name">Sessions</field>

<field name="res\_model">openacademy.session</field>

练习逆关联One2many  
使用逆关联字段one2many，编辑模型以反映课程和授课之间的关系。

* 编辑Course类，并且加入字段到它的表单视图

openacademy/models.py

responsible\_id = fields.Many2one('res.users',

ondelete='set null', string="Responsible", index=True)

session\_ids = fields.One2many(

'openacademy.session', 'course\_id', string="Sessions")

class Session(models.Model):

openacademy/views/openacademy.xml

<page string="Description">

<field name="description"/>

</page>

<page string="Sessions">

<field name="session\_ids">

<tree string="Registered sessions">

<field name="name"/>

<field name="instructor\_id"/>

</tree>

</field>

</page>

</notebook>

</sheet>

练习多对多关联many2many  
在授课模型中添加关联字段many2many,将每次授课和参与的听众做关联，听众来自于内置模型res.partner。相应的调整对应的视图。

* 修改Session类并且加入字段到它的表单视图中

openacademy/models.py

instructor\_id = fields.Many2one('res.partner', string="Instructor")

course\_id = fields.Many2one('openacademy.course',

ondelete='cascade', string="Course", required=True)

attendee\_ids = fields.Many2many('res.partner', string="Attendees")

openacademy/views/openacademy.xml

<field name="seats"/>

</group>

</group>

<label for="attendee\_ids"/>

<field name="attendee\_ids"/>

</sheet>

</form>

</field>