

Auto Incrementing Primary Keys

For a while now I've been inserting records into my database, and manually assigning the rowno, which is the primary key in each of my tables. Obviously that's not ideal, nor is it maintainable in a real setting, so after some research I've discovered that there were several constraints that were required to achieve auto-populating primary keys.

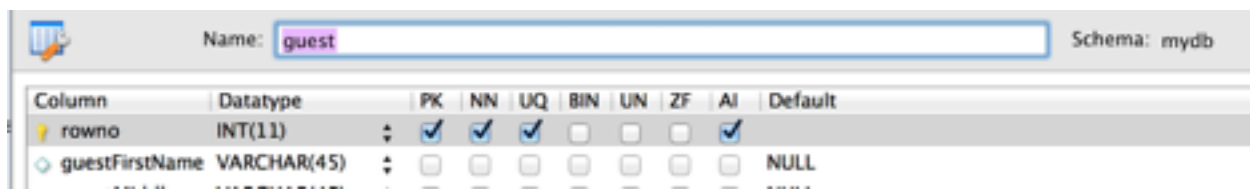
This was my original insert statement for the *guest* table

```
use mydb;
```

```
insert into guest values
```

```
(8,'hunter','','Ballance','M','Mr','','Not Started', NOW(),'Not Started', '1900-01-01','0','1','1','0','0'),  
(9,'belle','','Davidson','F','Mrs','','Not Started', NOW(),'Not Started', '1900-01-01','0','1','1','0','0')
```

After some initial research I learned that the following attributes had to be checked off for *guest.rowno*: Auto Increment (AI) and Unique (UN).



Column	Datatype	PK	NN	UQ	BIN	UN	ZF	AI	Default
rowno	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
guestFirstName	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL

After altering the table and rerunning the insert scripts, now without the primary key explicitly assigned I was still getting errors:



```
11 18:43:04 guest insert into guest values (11,'Kirstie','Davidson') Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 1
```

It turns out, when you omit an auto incrementing field from the insert statement, you must explicitly declare which columns you are inserting into. That seems obvious now, but I was struggling for a while. My final insert statements look similar to this:

```
INSERT INTO `mydb`.`guest`  
(  
  `guestFirstName`,  
  `guestMiddleName`,  
  `guestLastName`,  
  `gender`,  
  `prefix`,  
  `suffix`,  
  `rsvpStatus`,  
  `rsvpStatusChange`,  
  `invitationStatus`,
```

```
`invitationSent`,  
`isBrideGroom`,  
`hasDate`,  
`rowno_guest_wedding`,  
`rowno_guest_address`,  
`rowno_guest_seat`)
```

VALUES

```
('hunter2','Ballance','M','Mr','','Not Started', NOW(),'Not Started', '1900-01-01','0','1','1','0','0'),  
('belle2','','Davidson','F','Mrs','','Not Started', NOW(),'Not Started', '1900-01-01','0','1','1','0','0')
```

Notice that rowno is not included in the list of columns.

Because of the flexibility of omitting the primary key, I can now use the store procedure with parameters to insert. The goal was to use a PHP web interface to perfume the inserts, but now PHP is giving me a hard time.