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# Django

models

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# Modelni yaratish

```
class Book(models.Model):
```

```
    title = models.CharField(max_length=100)
```

```
    author = models.CharField(max_length=100)
```

```
    published_date = models.DateField()
```

```
    price = models.DecimalField(max_digits=5, decimal_places=2)
```

Maydonlar (Fields) va ularning turlari:

- `CharField`, `IntegerField`, `DateField`, `DecimalField`, `BooleanField` va boshqalar.
- `max_length`, `default`, `null`, `blank` kabi parametrlarni tushuntirish.

# Modelni ma'lumotlar bazasida aks ettirish

Ma'lumotlar bazasi sozlamalari (`settings.py` fayli).

```
DATABASES = {  
    "default": {  
        "ENGINE": config("DB_ENGINE"),  
        "NAME": config("DB_NAME"),  
        "USER": config("DB_USER"),  
        "PASSWORD": config("DB_PASS"),  
        "HOST": config("DB_HOST"),  
    }  
}
```

Migrations:

- `python manage.py makemigrations` - O'zgarishlarni aniqlash.
- `python manage.py migrate` - O'zgarishlarni tatbiq qilish.

# Modelda standart va maxsus metodlar

`__str__` metodi:

```
def __str__(self):  
    return self.title
```

Maxsus metodlar yaratish:

```
def get_discounted_price(self):  
    return self.price * 0.9
```

# Admin panelda modelni ko'rsatish

`admin.py` faylida modelni ro'yxatdan o'tkazish:

```
from django.contrib import admin
```

```
from .models import Book
```

```
admin.site.register(Book)
```

# ORM orqali ma'lumotlar bilan ishlash

## **Ma'lumot qo'shish:**

```
book = Book.objects.create(title="Django Basics", author="Ali", published_date="2023-12-01", price=15.99)
```

## Ma'lumotni olish:

```
books = Book.objects.all() # Hammasini olish
```

```
single_book = Book.objects.get(id=1) # Bitta obyektini olish
```

## Filtrlash:

```
books_by_author = Book.objects.filter(author="Ali")
```

## **Ma'lumotni yangilash:**

```
book = Book.objects.get(id=1)
```

```
book.price = 12.99
```

```
book.save()
```

## Ma'lumotni o'chirish:

```
book = Book.objects.get(id=1)
```

```
book.delete()
```