## **First Block**

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Now that we've added a basic item, let's add a basic block. The process for this is very similar to adding an item. The only difference is that we actually have to add a block and an item. This is because a block in Minecraft exists in two places: in the world, as a Block, and in the inventory as an ItemBlock, which is an item that corresponds to a Block. Let's get started! First, create a new class named BlockFirstBlock in the package com.cubicoder.tutorial.block.

```
package com.cubicoder.tutorial.block;
import com.cubicoder.tutorial.TutorialMod;
import net.minecraft.block.Block;
import net.minecraft.block.SoundType;
import net.minecraft.block.material.Material;
import net.minecraft.creativetab.CreativeTabs;
public class BlockFirstBlock extends Block {
    public BlockFirstBlock() {
        super(Material.STONE);
        setCreativeTab(CreativeTabs.MISC);
        setSoundType(SoundType.STONE);
    }
}
```

A Block contains a Material, which defines things like whether the block is flammable, or if can be seen through. Minecraft already defines a number of materials which are good enough for most purposes, but you could make a custom material if you wanted to. Right now, we'll just stick to the vanilla ones.

The BlockFirstBlock constructor is just like the one in ItemFirstItem.

In your init package, create a new class called ModBlocks. This will hold references to our mod's blocks.

```
package com.cubicoder.tutorial.init;
import com.cubicoder.tutorial.TutorialMod;
import com.cubicoder.tutorial.block.BlockFirstBlock;
import net.minecraftforge.fml.common.registry.GameRegistry.ObjectHolder;
@ObjectHolder(TutorialMod.MODID)
public class ModBlocks {
    public static final BlockFirstBlock FIRST_BLOCK = null;
}
```

Next, we need to register the Block, as well as the ItemBlock corresponding to that Block. We do this in our EventSubscriber.

```
package com.cubicoder.tutorial;
import com.cubicoder.tutorial.TutorialMod;
import com.cubicoder.tutorial.block.BlockFirstBlock;
import com.cubicoder.tutorial.init.ModBlocks;
import com.cubicoder.tutorial.item.ItemFirstItem;
import net.minecraft.block.Block;
import net.minecraft.block.material.Material;
import net.minecraft.item.Item;
import net.minecraft.item.ItemBlock;
import net.minecraftforge.event.RegistryEvent.Register;
import net.minecraftforge.fml.common.Mod.EventBusSubscriber;
import net.minecraftforge.fml.common.eventhandler.SubscribeEvent;
@EventBusSubscriber(modid = TutorialMod.MODID)
public final class EventSubscriber {
        @SubscribeEvent
        public static void registerBlocks(Register<Block> event) {
                final Block[] blocks = {
                                new BlockFirstBlock().setRegistryName("fi
                };
                event.getRegistry().registerAll(blocks);
        }
        @SubscribeEvent
        public static void registerItems(Register<Item> event) {
                final Item[] items = {
                                new ItemFirstItem().setRegistryName("firs
                };
                final Item[] itemBlocks = {
                new ItemBlock(ModBlocks.FIRST_BLOCK).setRegistryName(ModB
        };
                event.getRegistry().registerAll(items);
                event.getRegistry().registerAll(itemBlocks);
        }
```

Here, we add a new method that registers the blocks. We also register an ItemBlock for each block in the registerItems() method. Make sure to set the registry name of the ItemBlock to be the same as the block's.

In the ClientEventSubscriber class, add a line in registerModels() to register your block's model.

```
registerModel(Item.getItemFromBlock(ModBlocks.FIRST_BLOCK));
```

Now, we need to create the block models. Each block needs two models: a blockstate JSON in the assets/tutorialmod/blockstates folder, and an block model JSON in the assets/tutorialmod/models/block folder.

Blockstate JSON (named first\_block.json):

```
{
    "forge_marker": 1,
    "defaults": {
        "model": "tutorialmod:first_block"
    },
    "variants": {
            "normal": [{}],
            "inventory": [{}]
    }
}
```

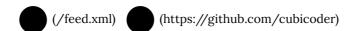
Block Model JSON (also named first\_block.json):

```
{
    "parent": "block/cube_all",
    "textures": {
        "all": "tutorialmod:blocks/first_block"
    }
}
```

Finally, put your texture in the assets/tutorialmod/textures/blocks folder. Run the game to see your custom block!







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