

# User Defined Exceptions

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## 1. extending Exception

```
class HighTempException extends Exception
{
public HighTempException()
{
super("Temperature Exceeds Safe Level");
}
}
```

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### “super” gives us all the necessary methods

getMessage() - what the user typed that generated the error

toString() - the computer's description of the message

printStackTrace() - list all the methods from main, to the one that generated the error

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## 2. throwing

```
public void increasePowerLevel() throws
    highTempException
{
    powerLevel = powerLevel + 10;
    temperature = powerLevel * 100;
    if (temperature >= 10000)
    {
        throw new highTempException();
    }
}
} // end increasePower
```

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## 3. using (i.e. catching)

```
try
{
    chernobyl.increasePowerLevel();
}
catch (highTempException hte)
{
    hte.printStackTrace();
    System.exit(0);
}
```

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