ASSIGNMENT 22

A student wishes to determine if there specific locations within a household that show heat loss. To assess this, she records temperatures at 20 sites within a household for each of 30 days. In addition, She records the outside temperature. The data are give in file temperat.dat and have the following form: The data have the following form:

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COLUMN          LABEL
 1-6            DATE (MDY)
 8-10           OUTSIDE TEMERATURE (DEGREES FAHRENHEIT)
12-13           ROOM LOCATION
15-18           INSIDE TEMPERATURE (DEGREES FAHRENHEIT)
 20             CORRECTION FACTOR ADDED (1=YES 0=NO)
 22                 TYPE OF WEATHER
                    (1=SUNNY, 2=PARTLY CLOUDY, 3=CLOUDY,   4=RAINY, 5=FOGGY,
                9=MISSING)
```

Construct a random effects model in BUGS to compare within and between days variability. Are there significant differences in temperature between different locations of the household?