BA Assignment 1

Tejaswini Yeruva

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## R Markdown

##1.ISLR package has already been installed just called the library.

library(ISLR)

##2.Called the ISLR library and then printed the summary of the Carseats dataset along with number of observations(rows)

library(ISLR)  
print(Carseats)

## Sales CompPrice Income Advertising Population Price ShelveLoc Age Education  
## 1 9.50 138 73 11 276 120 Bad 42 17  
## 2 11.22 111 48 16 260 83 Good 65 10  
## 3 10.06 113 35 10 269 80 Medium 59 12  
## 4 7.40 117 100 4 466 97 Medium 55 14  
## 5 4.15 141 64 3 340 128 Bad 38 13  
## 6 10.81 124 113 13 501 72 Bad 78 16  
## 7 6.63 115 105 0 45 108 Medium 71 15  
## 8 11.85 136 81 15 425 120 Good 67 10  
## 9 6.54 132 110 0 108 124 Medium 76 10  
## 10 4.69 132 113 0 131 124 Medium 76 17  
## 11 9.01 121 78 9 150 100 Bad 26 10  
## 12 11.96 117 94 4 503 94 Good 50 13  
## 13 3.98 122 35 2 393 136 Medium 62 18  
## 14 10.96 115 28 11 29 86 Good 53 18  
## 15 11.17 107 117 11 148 118 Good 52 18  
## 16 8.71 149 95 5 400 144 Medium 76 18  
## 17 7.58 118 32 0 284 110 Good 63 13  
## 18 12.29 147 74 13 251 131 Good 52 10  
## 19 13.91 110 110 0 408 68 Good 46 17  
## 20 8.73 129 76 16 58 121 Medium 69 12  
## 21 6.41 125 90 2 367 131 Medium 35 18  
## 22 12.13 134 29 12 239 109 Good 62 18  
## 23 5.08 128 46 6 497 138 Medium 42 13  
## 24 5.87 121 31 0 292 109 Medium 79 10  
## 25 10.14 145 119 16 294 113 Bad 42 12  
## 26 14.90 139 32 0 176 82 Good 54 11  
## 27 8.33 107 115 11 496 131 Good 50 11  
## 28 5.27 98 118 0 19 107 Medium 64 17  
## 29 2.99 103 74 0 359 97 Bad 55 11  
## 30 7.81 104 99 15 226 102 Bad 58 17  
## 31 13.55 125 94 0 447 89 Good 30 12  
## 32 8.25 136 58 16 241 131 Medium 44 18  
## 33 6.20 107 32 12 236 137 Good 64 10  
## 34 8.77 114 38 13 317 128 Good 50 16  
## 35 2.67 115 54 0 406 128 Medium 42 17  
## 36 11.07 131 84 11 29 96 Medium 44 17  
## 37 8.89 122 76 0 270 100 Good 60 18  
## 38 4.95 121 41 5 412 110 Medium 54 10  
## 39 6.59 109 73 0 454 102 Medium 65 15  
## 40 3.24 130 60 0 144 138 Bad 38 10  
## 41 2.07 119 98 0 18 126 Bad 73 17  
## 42 7.96 157 53 0 403 124 Bad 58 16  
## 43 10.43 77 69 0 25 24 Medium 50 18  
## 44 4.12 123 42 11 16 134 Medium 59 13  
## 45 4.16 85 79 6 325 95 Medium 69 13  
## 46 4.56 141 63 0 168 135 Bad 44 12  
## 47 12.44 127 90 14 16 70 Medium 48 15  
## 48 4.38 126 98 0 173 108 Bad 55 16  
## 49 3.91 116 52 0 349 98 Bad 69 18  
## 50 10.61 157 93 0 51 149 Good 32 17  
## 51 1.42 99 32 18 341 108 Bad 80 16  
## 52 4.42 121 90 0 150 108 Bad 75 16  
## 53 7.91 153 40 3 112 129 Bad 39 18  
## 54 6.92 109 64 13 39 119 Medium 61 17  
## 55 4.90 134 103 13 25 144 Medium 76 17  
## 56 6.85 143 81 5 60 154 Medium 61 18  
## 57 11.91 133 82 0 54 84 Medium 50 17  
## 58 0.91 93 91 0 22 117 Bad 75 11  
## 59 5.42 103 93 15 188 103 Bad 74 16  
## 60 5.21 118 71 4 148 114 Medium 80 13  
## 61 8.32 122 102 19 469 123 Bad 29 13  
## 62 7.32 105 32 0 358 107 Medium 26 13  
## 63 1.82 139 45 0 146 133 Bad 77 17  
## 64 8.47 119 88 10 170 101 Medium 61 13  
## 65 7.80 100 67 12 184 104 Medium 32 16  
## 66 4.90 122 26 0 197 128 Medium 55 13  
## 67 8.85 127 92 0 508 91 Medium 56 18  
## 68 9.01 126 61 14 152 115 Medium 47 16  
## 69 13.39 149 69 20 366 134 Good 60 13  
## 70 7.99 127 59 0 339 99 Medium 65 12  
## 71 9.46 89 81 15 237 99 Good 74 12  
## 72 6.50 148 51 16 148 150 Medium 58 17  
## 73 5.52 115 45 0 432 116 Medium 25 15  
## 74 12.61 118 90 10 54 104 Good 31 11  
## 75 6.20 150 68 5 125 136 Medium 64 13  
## 76 8.55 88 111 23 480 92 Bad 36 16  
## 77 10.64 102 87 10 346 70 Medium 64 15  
## 78 7.70 118 71 12 44 89 Medium 67 18  
## 79 4.43 134 48 1 139 145 Medium 65 12  
## 80 9.14 134 67 0 286 90 Bad 41 13  
## 81 8.01 113 100 16 353 79 Bad 68 11  
## 82 7.52 116 72 0 237 128 Good 70 13  
## 83 11.62 151 83 4 325 139 Good 28 17  
## 84 4.42 109 36 7 468 94 Bad 56 11  
## 85 2.23 111 25 0 52 121 Bad 43 18  
## 86 8.47 125 103 0 304 112 Medium 49 13  
## 87 8.70 150 84 9 432 134 Medium 64 15  
## 88 11.70 131 67 7 272 126 Good 54 16  
## 89 6.56 117 42 7 144 111 Medium 62 10  
## 90 7.95 128 66 3 493 119 Medium 45 16  
## 91 5.33 115 22 0 491 103 Medium 64 11  
## 92 4.81 97 46 11 267 107 Medium 80 15  
## 93 4.53 114 113 0 97 125 Medium 29 12  
## 94 8.86 145 30 0 67 104 Medium 55 17  
## 95 8.39 115 97 5 134 84 Bad 55 11  
## 96 5.58 134 25 10 237 148 Medium 59 13  
## 97 9.48 147 42 10 407 132 Good 73 16  
## 98 7.45 161 82 5 287 129 Bad 33 16  
## 99 12.49 122 77 24 382 127 Good 36 16  
## 100 4.88 121 47 3 220 107 Bad 56 16  
## 101 4.11 113 69 11 94 106 Medium 76 12  
## 102 6.20 128 93 0 89 118 Medium 34 18  
## 103 5.30 113 22 0 57 97 Medium 65 16  
## 104 5.07 123 91 0 334 96 Bad 78 17  
## 105 4.62 121 96 0 472 138 Medium 51 12  
## 106 5.55 104 100 8 398 97 Medium 61 11  
## 107 0.16 102 33 0 217 139 Medium 70 18  
## 108 8.55 134 107 0 104 108 Medium 60 12  
## 109 3.47 107 79 2 488 103 Bad 65 16  
## 110 8.98 115 65 0 217 90 Medium 60 17  
## 111 9.00 128 62 7 125 116 Medium 43 14  
## 112 6.62 132 118 12 272 151 Medium 43 14  
## 113 6.67 116 99 5 298 125 Good 62 12  
## 114 6.01 131 29 11 335 127 Bad 33 12  
## 115 9.31 122 87 9 17 106 Medium 65 13  
## 116 8.54 139 35 0 95 129 Medium 42 13  
## 117 5.08 135 75 0 202 128 Medium 80 10  
## 118 8.80 145 53 0 507 119 Medium 41 12  
## 119 7.57 112 88 2 243 99 Medium 62 11  
## 120 7.37 130 94 8 137 128 Medium 64 12  
## 121 6.87 128 105 11 249 131 Medium 63 13  
## 122 11.67 125 89 10 380 87 Bad 28 10  
## 123 6.88 119 100 5 45 108 Medium 75 10  
## 124 8.19 127 103 0 125 155 Good 29 15  
## 125 8.87 131 113 0 181 120 Good 63 14  
## 126 9.34 89 78 0 181 49 Medium 43 15  
## 127 11.27 153 68 2 60 133 Good 59 16  
## 128 6.52 125 48 3 192 116 Medium 51 14  
## 129 4.96 133 100 3 350 126 Bad 55 13  
## 130 4.47 143 120 7 279 147 Bad 40 10  
## 131 8.41 94 84 13 497 77 Medium 51 12  
## 132 6.50 108 69 3 208 94 Medium 77 16  
## 133 9.54 125 87 9 232 136 Good 72 10  
## 134 7.62 132 98 2 265 97 Bad 62 12  
## 135 3.67 132 31 0 327 131 Medium 76 16  
## 136 6.44 96 94 14 384 120 Medium 36 18  
## 137 5.17 131 75 0 10 120 Bad 31 18  
## 138 6.52 128 42 0 436 118 Medium 80 11  
## 139 10.27 125 103 12 371 109 Medium 44 10  
## 140 12.30 146 62 10 310 94 Medium 30 13  
## 141 6.03 133 60 10 277 129 Medium 45 18  
## 142 6.53 140 42 0 331 131 Bad 28 15  
## 143 7.44 124 84 0 300 104 Medium 77 15  
## 144 0.53 122 88 7 36 159 Bad 28 17  
## 145 9.09 132 68 0 264 123 Good 34 11  
## 146 8.77 144 63 11 27 117 Medium 47 17  
## 147 3.90 114 83 0 412 131 Bad 39 14  
## 148 10.51 140 54 9 402 119 Good 41 16  
## 149 7.56 110 119 0 384 97 Medium 72 14  
## 150 11.48 121 120 13 140 87 Medium 56 11  
## 151 10.49 122 84 8 176 114 Good 57 10  
## 152 10.77 111 58 17 407 103 Good 75 17  
## 153 7.64 128 78 0 341 128 Good 45 13  
## 154 5.93 150 36 7 488 150 Medium 25 17  
## 155 6.89 129 69 10 289 110 Medium 50 16  
## 156 7.71 98 72 0 59 69 Medium 65 16  
## 157 7.49 146 34 0 220 157 Good 51 16  
## 158 10.21 121 58 8 249 90 Medium 48 13  
## 159 12.53 142 90 1 189 112 Good 39 10  
## 160 9.32 119 60 0 372 70 Bad 30 18  
## 161 4.67 111 28 0 486 111 Medium 29 12  
## 162 2.93 143 21 5 81 160 Medium 67 12  
## 163 3.63 122 74 0 424 149 Medium 51 13  
## 164 5.68 130 64 0 40 106 Bad 39 17  
## 165 8.22 148 64 0 58 141 Medium 27 13  
## 166 0.37 147 58 7 100 191 Bad 27 15  
## 167 6.71 119 67 17 151 137 Medium 55 11  
## 168 6.71 106 73 0 216 93 Medium 60 13  
## 169 7.30 129 89 0 425 117 Medium 45 10  
## 170 11.48 104 41 15 492 77 Good 73 18  
## 171 8.01 128 39 12 356 118 Medium 71 10  
## 172 12.49 93 106 12 416 55 Medium 75 15  
## 173 9.03 104 102 13 123 110 Good 35 16  
## 174 6.38 135 91 5 207 128 Medium 66 18  
## 175 0.00 139 24 0 358 185 Medium 79 15  
## 176 7.54 115 89 0 38 122 Medium 25 12  
## 177 5.61 138 107 9 480 154 Medium 47 11  
## 178 10.48 138 72 0 148 94 Medium 27 17  
## 179 10.66 104 71 14 89 81 Medium 25 14  
## 180 7.78 144 25 3 70 116 Medium 77 18  
## 181 4.94 137 112 15 434 149 Bad 66 13  
## 182 7.43 121 83 0 79 91 Medium 68 11  
## 183 4.74 137 60 4 230 140 Bad 25 13  
## 184 5.32 118 74 6 426 102 Medium 80 18  
## 185 9.95 132 33 7 35 97 Medium 60 11  
## 186 10.07 130 100 11 449 107 Medium 64 10  
## 187 8.68 120 51 0 93 86 Medium 46 17  
## 188 6.03 117 32 0 142 96 Bad 62 17  
## 189 8.07 116 37 0 426 90 Medium 76 15  
## 190 12.11 118 117 18 509 104 Medium 26 15  
## 191 8.79 130 37 13 297 101 Medium 37 13  
## 192 6.67 156 42 13 170 173 Good 74 14  
## 193 7.56 108 26 0 408 93 Medium 56 14  
## 194 13.28 139 70 7 71 96 Good 61 10  
## 195 7.23 112 98 18 481 128 Medium 45 11  
## 196 4.19 117 93 4 420 112 Bad 66 11  
## 197 4.10 130 28 6 410 133 Bad 72 16  
## 198 2.52 124 61 0 333 138 Medium 76 16  
## 199 3.62 112 80 5 500 128 Medium 69 10  
## 200 6.42 122 88 5 335 126 Medium 64 14  
## 201 5.56 144 92 0 349 146 Medium 62 12  
## 202 5.94 138 83 0 139 134 Medium 54 18  
## 203 4.10 121 78 4 413 130 Bad 46 10  
## 204 2.05 131 82 0 132 157 Bad 25 14  
## 205 8.74 155 80 0 237 124 Medium 37 14  
## 206 5.68 113 22 1 317 132 Medium 28 12  
## 207 4.97 162 67 0 27 160 Medium 77 17  
## 208 8.19 111 105 0 466 97 Bad 61 10  
## 209 7.78 86 54 0 497 64 Bad 33 12  
## 210 3.02 98 21 11 326 90 Bad 76 11  
## 211 4.36 125 41 2 357 123 Bad 47 14  
## 212 9.39 117 118 14 445 120 Medium 32 15  
## 213 12.04 145 69 19 501 105 Medium 45 11  
## 214 8.23 149 84 5 220 139 Medium 33 10  
## 215 4.83 115 115 3 48 107 Medium 73 18  
## 216 2.34 116 83 15 170 144 Bad 71 11  
## 217 5.73 141 33 0 243 144 Medium 34 17  
## 218 4.34 106 44 0 481 111 Medium 70 14  
## 219 9.70 138 61 12 156 120 Medium 25 14  
## 220 10.62 116 79 19 359 116 Good 58 17  
## 221 10.59 131 120 15 262 124 Medium 30 10  
## 222 6.43 124 44 0 125 107 Medium 80 11  
## 223 7.49 136 119 6 178 145 Medium 35 13  
## 224 3.45 110 45 9 276 125 Medium 62 14  
## 225 4.10 134 82 0 464 141 Medium 48 13  
## 226 6.68 107 25 0 412 82 Bad 36 14  
## 227 7.80 119 33 0 245 122 Good 56 14  
## 228 8.69 113 64 10 68 101 Medium 57 16  
## 229 5.40 149 73 13 381 163 Bad 26 11  
## 230 11.19 98 104 0 404 72 Medium 27 18  
## 231 5.16 115 60 0 119 114 Bad 38 14  
## 232 8.09 132 69 0 123 122 Medium 27 11  
## 233 13.14 137 80 10 24 105 Good 61 15  
## 234 8.65 123 76 18 218 120 Medium 29 14  
## 235 9.43 115 62 11 289 129 Good 56 16  
## 236 5.53 126 32 8 95 132 Medium 50 17  
## 237 9.32 141 34 16 361 108 Medium 69 10  
## 238 9.62 151 28 8 499 135 Medium 48 10  
## 239 7.36 121 24 0 200 133 Good 73 13  
## 240 3.89 123 105 0 149 118 Bad 62 16  
## 241 10.31 159 80 0 362 121 Medium 26 18  
## 242 12.01 136 63 0 160 94 Medium 38 12  
## 243 4.68 124 46 0 199 135 Medium 52 14  
## 244 7.82 124 25 13 87 110 Medium 57 10  
## 245 8.78 130 30 0 391 100 Medium 26 18  
## 246 10.00 114 43 0 199 88 Good 57 10  
## 247 6.90 120 56 20 266 90 Bad 78 18  
## 248 5.04 123 114 0 298 151 Bad 34 16  
## 249 5.36 111 52 0 12 101 Medium 61 11  
## 250 5.05 125 67 0 86 117 Bad 65 11  
## 251 9.16 137 105 10 435 156 Good 72 14  
## 252 3.72 139 111 5 310 132 Bad 62 13  
## 253 8.31 133 97 0 70 117 Medium 32 16  
## 254 5.64 124 24 5 288 122 Medium 57 12  
## 255 9.58 108 104 23 353 129 Good 37 17  
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## 258 8.67 125 62 14 477 112 Medium 80 13  
## 259 3.47 108 38 0 251 81 Bad 72 14  
## 260 5.12 123 36 10 467 100 Bad 74 11  
## 261 7.67 129 117 8 400 101 Bad 36 10  
## 262 5.71 121 42 4 188 118 Medium 54 15  
## 263 6.37 120 77 15 86 132 Medium 48 18  
## 264 7.77 116 26 6 434 115 Medium 25 17  
## 265 6.95 128 29 5 324 159 Good 31 15  
## 266 5.31 130 35 10 402 129 Bad 39 17  
## 267 9.10 128 93 12 343 112 Good 73 17  
## 268 5.83 134 82 7 473 112 Bad 51 12  
## 269 6.53 123 57 0 66 105 Medium 39 11  
## 270 5.01 159 69 0 438 166 Medium 46 17  
## 271 11.99 119 26 0 284 89 Good 26 10  
## 272 4.55 111 56 0 504 110 Medium 62 16  
## 273 12.98 113 33 0 14 63 Good 38 12  
## 274 10.04 116 106 8 244 86 Medium 58 12  
## 275 7.22 135 93 2 67 119 Medium 34 11  
## 276 6.67 107 119 11 210 132 Medium 53 11  
## 277 6.93 135 69 14 296 130 Medium 73 15  
## 278 7.80 136 48 12 326 125 Medium 36 16  
## 279 7.22 114 113 2 129 151 Good 40 15  
## 280 3.42 141 57 13 376 158 Medium 64 18  
## 281 2.86 121 86 10 496 145 Bad 51 10  
## 282 11.19 122 69 7 303 105 Good 45 16  
## 283 7.74 150 96 0 80 154 Good 61 11  
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## 285 6.97 106 46 11 414 96 Bad 79 17  
## 286 7.60 146 26 11 261 131 Medium 39 10  
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## 289 6.98 116 40 0 74 97 Medium 76 15  
## 290 8.75 143 77 25 448 156 Medium 43 17  
## 291 9.49 107 111 14 400 103 Medium 41 11  
## 292 6.64 118 70 0 106 89 Bad 39 17  
## 293 11.82 113 66 16 322 74 Good 76 15  
## 294 11.28 123 84 0 74 89 Good 59 10  
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## 296 4.21 118 35 14 502 137 Medium 79 10  
## 297 8.21 127 44 13 160 123 Good 63 18  
## 298 3.07 118 83 13 276 104 Bad 75 10  
## 299 10.98 148 63 0 312 130 Good 63 15  
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## 301 8.57 116 78 1 158 99 Medium 45 11  
## 302 7.41 99 93 0 198 87 Medium 57 16  
## 303 5.28 108 77 13 388 110 Bad 74 14  
## 304 10.01 133 52 16 290 99 Medium 43 11  
## 305 11.93 123 98 12 408 134 Good 29 10  
## 306 8.03 115 29 26 394 132 Medium 33 13  
## 307 4.78 131 32 1 85 133 Medium 48 12  
## 308 5.90 138 92 0 13 120 Bad 61 12  
## 309 9.24 126 80 19 436 126 Medium 52 10  
## 310 11.18 131 111 13 33 80 Bad 68 18  
## 311 9.53 175 65 29 419 166 Medium 53 12  
## 312 6.15 146 68 12 328 132 Bad 51 14  
## 313 6.80 137 117 5 337 135 Bad 38 10  
## 314 9.33 103 81 3 491 54 Medium 66 13  
## 315 7.72 133 33 10 333 129 Good 71 14  
## 316 6.39 131 21 8 220 171 Good 29 14  
## 317 15.63 122 36 5 369 72 Good 35 10  
## 318 6.41 142 30 0 472 136 Good 80 15  
## 319 10.08 116 72 10 456 130 Good 41 14  
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## 325 2.66 136 65 4 133 150 Bad 53 13  
## 326 11.70 144 69 11 131 104 Medium 47 11  
## 327 4.69 133 30 0 152 122 Medium 53 17  
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## 329 3.15 117 66 1 65 111 Bad 55 11  
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## 341 7.50 140 29 0 105 91 Bad 43 16  
## 342 7.38 98 120 0 268 93 Medium 72 10  
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## 344 5.99 117 42 10 371 121 Bad 26 14  
## 345 8.43 138 80 0 108 126 Good 70 13  
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## 348 6.88 96 39 0 161 112 Good 27 14  
## 349 12.57 132 102 20 459 107 Good 49 11  
## 350 9.32 134 27 18 467 96 Medium 49 14  
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## 352 10.44 124 115 16 458 105 Medium 62 16  
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## 355 5.30 133 31 1 80 145 Medium 42 18  
## 356 7.02 130 100 0 306 146 Good 42 11  
## 357 3.58 142 109 0 111 164 Good 72 12  
## 358 13.36 103 73 3 276 72 Medium 34 15  
## 359 4.17 123 96 10 71 118 Bad 69 11  
## 360 3.13 130 62 11 396 130 Bad 66 14  
## 361 8.77 118 86 7 265 114 Good 52 15  
## 362 8.68 131 25 10 183 104 Medium 56 15  
## 363 5.25 131 55 0 26 110 Bad 79 12  
## 364 10.26 111 75 1 377 108 Good 25 12  
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## 366 6.53 154 30 0 122 162 Medium 57 17  
## 367 5.98 124 56 11 447 134 Medium 53 12  
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## 370 10.26 135 100 22 463 122 Medium 36 14  
## 371 7.68 126 41 22 403 119 Bad 42 12  
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## 373 7.80 121 50 0 508 98 Medium 65 11  
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## 375 9.44 131 47 7 90 118 Medium 47 12  
## 376 7.90 132 46 4 206 124 Medium 73 11  
## 377 16.27 141 60 19 319 92 Good 44 11  
## 378 6.81 132 61 0 263 125 Medium 41 12  
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## 399 5.94 100 79 7 284 95 Bad 50 12  
## 400 9.71 134 37 0 27 120 Good 49 16  
## Urban US  
## 1 Yes Yes  
## 2 Yes Yes  
## 3 Yes Yes  
## 4 Yes Yes  
## 5 Yes No  
## 6 No Yes  
## 7 Yes No  
## 8 Yes Yes  
## 9 No No  
## 10 No Yes  
## 11 No Yes  
## 12 Yes Yes  
## 13 Yes No  
## 14 Yes Yes  
## 15 Yes Yes  
## 16 No No  
## 17 Yes No  
## 18 Yes Yes  
## 19 No Yes  
## 20 Yes Yes  
## 21 Yes Yes  
## 22 No Yes  
## 23 Yes No  
## 24 Yes No  
## 25 Yes Yes  
## 26 No No  
## 27 No Yes  
## 28 Yes No  
## 29 Yes Yes  
## 30 Yes Yes  
## 31 Yes No  
## 32 Yes Yes  
## 33 No Yes  
## 34 Yes Yes  
## 35 Yes Yes  
## 36 No Yes  
## 37 No No  
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## 39 Yes No  
## 40 No No  
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## 43 Yes No  
## 44 Yes Yes  
## 45 Yes Yes  
## 46 Yes Yes  
## 47 No Yes  
## 48 Yes No  
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## 54 Yes Yes  
## 55 No Yes  
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## 57 Yes No  
## 58 Yes No  
## 59 Yes Yes  
## 60 Yes No  
## 61 Yes Yes  
## 62 No No  
## 63 Yes Yes  
## 64 Yes Yes  
## 65 No Yes  
## 66 No No  
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## 82 Yes No  
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## 84 Yes Yes  
## 85 No No  
## 86 No No  
## 87 Yes No  
## 88 No Yes  
## 89 Yes Yes  
## 90 No No  
## 91 No No  
## 92 Yes Yes  
## 93 Yes No  
## 94 Yes No  
## 95 Yes Yes  
## 96 Yes Yes  
## 97 No Yes  
## 98 Yes Yes  
## 99 No Yes  
## 100 No Yes  
## 101 No Yes  
## 102 Yes No  
## 103 No No  
## 104 Yes Yes  
## 105 Yes No  
## 106 Yes Yes  
## 107 No No  
## 108 Yes No  
## 109 Yes No  
## 110 No No  
## 111 Yes Yes  
## 112 Yes Yes  
## 113 Yes Yes  
## 114 Yes Yes  
## 115 Yes Yes  
## 116 Yes No  
## 117 No No  
## 118 Yes No  
## 119 Yes Yes  
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## 122 Yes Yes  
## 123 Yes Yes  
## 124 No Yes  
## 125 Yes No  
## 126 No No  
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## 128 Yes Yes  
## 129 Yes Yes  
## 130 No Yes  
## 131 Yes Yes  
## 132 Yes No  
## 133 Yes Yes  
## 134 Yes Yes  
## 135 Yes No  
## 136 No Yes  
## 137 No No  
## 138 Yes No  
## 139 Yes Yes  
## 140 No Yes  
## 141 Yes Yes  
## 142 Yes No  
## 143 Yes No  
## 144 Yes Yes  
## 145 No No  
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## 147 Yes No  
## 148 No Yes  
## 149 No Yes  
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## 151 No Yes  
## 152 No Yes  
## 153 No No  
## 154 No Yes  
## 155 No Yes  
## 156 Yes No  
## 157 Yes No  
## 158 No Yes  
## 159 No Yes  
## 160 No No  
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## 162 No Yes  
## 163 Yes No  
## 164 No No  
## 165 No Yes  
## 166 Yes Yes  
## 167 Yes Yes  
## 168 Yes No  
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## 175 No No  
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## 187 No No  
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## 190 No Yes  
## 191 No Yes  
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## 200 Yes Yes  
## 201 No No  
## 202 Yes No  
## 203 No Yes  
## 204 Yes No  
## 205 Yes No  
## 206 Yes No  
## 207 Yes Yes  
## 208 No No  
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## 210 No Yes  
## 211 No Yes  
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## 213 Yes Yes  
## 214 Yes Yes  
## 215 Yes Yes  
## 216 Yes Yes  
## 217 Yes No  
## 218 No No  
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## 220 Yes Yes  
## 221 Yes Yes  
## 222 Yes No  
## 223 Yes Yes  
## 224 Yes Yes  
## 225 No No  
## 226 Yes No  
## 227 Yes No  
## 228 Yes Yes  
## 229 No Yes  
## 230 No No  
## 231 No No  
## 232 No No  
## 233 Yes Yes  
## 234 No Yes  
## 235 No Yes  
## 236 Yes Yes  
## 237 Yes Yes  
## 238 Yes Yes  
## 239 Yes No  
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## 361 No Yes  
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## 388 No Yes  
## 389 Yes Yes  
## 390 Yes Yes  
## 391 Yes Yes  
## 392 Yes No  
## 393 Yes Yes  
## 394 No Yes  
## 395 Yes Yes  
## 396 Yes Yes  
## 397 No Yes  
## 398 Yes Yes  
## 399 Yes Yes  
## 400 Yes Yes

summary(Carseats)

## Sales CompPrice Income Advertising   
## Min. : 0.000 Min. : 77 Min. : 21.00 Min. : 0.000   
## 1st Qu.: 5.390 1st Qu.:115 1st Qu.: 42.75 1st Qu.: 0.000   
## Median : 7.490 Median :125 Median : 69.00 Median : 5.000   
## Mean : 7.496 Mean :125 Mean : 68.66 Mean : 6.635   
## 3rd Qu.: 9.320 3rd Qu.:135 3rd Qu.: 91.00 3rd Qu.:12.000   
## Max. :16.270 Max. :175 Max. :120.00 Max. :29.000   
## Population Price ShelveLoc Age Education   
## Min. : 10.0 Min. : 24.0 Bad : 96 Min. :25.00 Min. :10.0   
## 1st Qu.:139.0 1st Qu.:100.0 Good : 85 1st Qu.:39.75 1st Qu.:12.0   
## Median :272.0 Median :117.0 Medium:219 Median :54.50 Median :14.0   
## Mean :264.8 Mean :115.8 Mean :53.32 Mean :13.9   
## 3rd Qu.:398.5 3rd Qu.:131.0 3rd Qu.:66.00 3rd Qu.:16.0   
## Max. :509.0 Max. :191.0 Max. :80.00 Max. :18.0   
## Urban US   
## No :118 No :142   
## Yes:282 Yes:258   
##   
##   
##   
##

nrow(Carseats)

## [1] 400

#3.Maximum value of the advertising attribute is calculated.

max(Carseats$Advertising)

## [1] 29

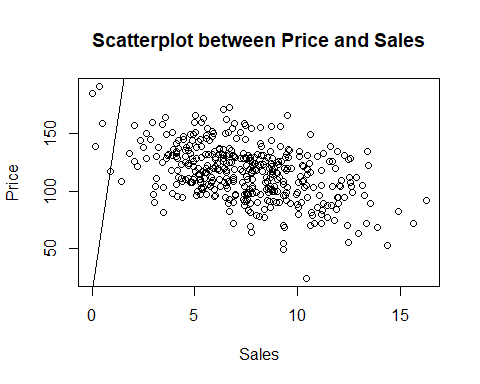
##4.Calculated the IQR of the Price attribute.

IQR(Carseats$Price)

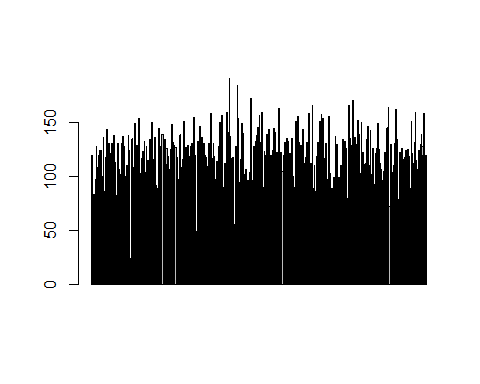
## [1] 31

##5.Scatter plot between Price and Sales

plot(Carseats$Sales, Carseats$Price, main = "Scatterplot between Price and Sales", xlab = "Sales", ylab = "Price",abline(Carseats$Sales,Carseats$Price))



barplot(Carseats$Price, Carseats$Sales)



## Calculated the correlation between sales and price and derived value is negative which mean the sales and price tend to move in opposite direction and the correlation coeffcient is very week.

cor.test(Carseats$Sales, Carseats$Price)

##   
## Pearson's product-moment correlation  
##   
## data: Carseats$Sales and Carseats$Price  
## t = -9.912, df = 398, p-value < 2.2e-16  
## alternative hypothesis: true correlation is not equal to 0  
## 95 percent confidence interval:  
## -0.5203026 -0.3627240  
## sample estimates:  
## cor   
## -0.4449507