```sas
/* STAT 382 WORKSHEET 6 */


/* IMPORT DATASET */
TITLE 'IMPORT DATASET';

%web_drop_table(WORK.IMPORT);


FILENAME REFFILE '/home/u61397358/sasuser.v94/stocks_nyse2.csv';

PROC IMPORT DATAFILE=REFFILE
    DBMS=CSV
    OUT=NYSE2;
    GETNAMES=YES;
RUN;

PROC CONTENTS DATA=NYSE2; RUN;


%web_open_table(WORK.IMPORT);


/* Task 1: Create a frequency table for the variable Sector */
TITLE 'TASK 1: Frequency Table for Sector';

PROC FREQ DATA=NYSE2;
    TABLES Sector /
    PLOTS=(freqplot);



/* Task 2: Create a bar chart for the Sector showing how many companies
    are in each sector with labels. */
TITLE 'TASK 2: Bar Chart for Sector';

PROC SGPLOT DATA=NYSE2;
    VBAR Sector;
RUN;


/* Task 3: Compute the mean and median DividendYield by sector
    using one procedure statement. */
TITLE 'TASK 3: Mean and Median DividendYield by Sector';

PROC SGPLOT DATA=NYSE2;
    VBAR Sector /
    stat=mean /
    stat=median;
RUN;



/* Task 4: Create a histogram for Price with labels. */
TITLE 'TASK 4: Histogram for Price';

PROC SGPLOT DATA=NYSE2;
    HISTOGRAM Price;
RUN;



```

```
63 /* Task 5: Create a boxplot for Price with labels. */
64 TITLE 'TASK 5: Boxplot for Price';
65
66 PROC SGPLOT DATA=NYSE2;
67     HBOX Price;
68 RUN;
69
70
71 /* Task 6: Compute a 92% Confidence Interval for EarningsperShare */
72 TITLE 'TASK 6: 92% CI for Earnings Per Share';
73
74 PROC UNIVARIATE DATA = NYSE2
75 CIBASIC (ALPHA = 0.08 TYPE = TWOSIDED);
76 VAR EarningsperShare;
77 RUN;
78     /* The 92% CI is: (3.31449, 4.35894) */
79
80
81
82 /* Task 7: Test the claim that the mean DividendYield is
83     greater than 2 at a 3.5% significance level. */
84 TITLE 'TASK 7: DividendYield HT';
85
86 /* Hypotheses:
87     H0: mu = 2
88     H1: mu > 2
89 */
90
91
92 * Code;
93 proc ttest data=NYSE2 h0=2 sides=u plots;
94 var DividendYield;
95 run;
96
97
98 /*
99 P-value = 0.0125
100 Decision: Reject H0
101 Conclusion: There is enough evidence to suggest that the mean Dividend Yield is greater than 2.
102 */
```