PRACTICAL NO.9

To perform and Data analysis with Co-relation Matrix

In [3]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

In [5]:
```
df = pd.read_csv("C:\\Users\\SAICOM\\Downloads\\student_scores.csv")
```

In [6]:
```
print("First 5 rows of the dataset:")
print(df.head())
```

```
First 5 rows of the dataset:
   Hours  Scores
0    2.5      21
1    5.1      47
2    3.2      27
3    8.5      75
4    3.5      30
```

In [7]:
```
correlation_matrix = df.corr()
print("\nCorrelation Matrix:")
print(correlation_matrix)
```

```
Correlation Matrix:
            Hours    Scores
Hours    1.000000  0.976191
Scores   0.976191  1.000000
```

In [8]:
```
plt.figure(figsize=(10, 8))
sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm', linewidths=0.5)
plt.title('Correlation Matrix Heatmap - Student Scores')
plt.show()
```