Lab 10:

1. **Reading csv file**

```
data = pd.read_csv('dataset.csv')
```

2. **Printing rows and colums / shape of dataframe**

```
print('We have {} rows.'.format(data.shape[0]))
print('We have {} columns'.format(data.shape[1]))
```

3. **Checking null values**

```
np.sum(pd.isnull(data))
```

4. **Checking unique values of specific column**

```
data[‘columnname’].unique()
```

5. **Filling null values**

```
num = data[‘columnname’].mode()[0]
data['education'] = data[‘columnname’].fillna(num)
```

6. **Type conversion to int**

```
data.columname.astype(np.int64)
```

7. **Dropping unnecessary columns**

```
data.drop(‘id', axis=1, inplace=True)
```

8. **Check datatypes of all columns**

```
data.dtypes
```

9. **Splitting into x and y**

```
x = data.iloc[:, 0:-1]
x.shape
y = data.iloc[:,-1]
y.shape
```

10. **Converting Object columns into Int columns**

```
cat_columns = x.select_dtypes(['object']).columns
x[cat_columns] = x[cat_columns].apply(lambda x: pd.factorize(x)[0])
```

Lab 10 Task

1. **(Continue from Lab 9):**
   - Data Pre-Processing
   - Dealing with Null Values
   - Changing Datatypes of Columns to be "Int"