In [1]:
```
#Name:-Kuldeep Ghorpade
#Div:-B
#Roll No.:-09
#ExperimentN No. & Name:- (08)Interactive visualizations using Plotly
```

In [2]:
```
using CSV
using DataFrames
using Plots
using StatsPlots
```

In [3]:
```
plotly()
```

```
┌ Warning: For saving to png with the `Plotly` backend `PlotlyBase` and `PlotlyKal
eido` need to be installed.
│   err = ArgumentError("Package PlotlyBase not found in current path.\n- Run `imp
ort Pkg; Pkg.add(\"PlotlyBase\")` to install the PlotlyBase package.")
└ @ Plots C:\Users\kulde\.julia\packages\Plots\kYFLA\src\backends.jl:420
```

Out[3]:
```
Plots.PlotlyBackend()
```

In [4]:
```
train=CSV.read("loan.csv",DataFrame,normalizenames=true)
```

Out[4]: 614×13 DataFrame

Row	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	Coa
	String15	String7?	String3?	String3?	String15	String3?	Int64	Floa
1	LP001002	Male	No	0	Graduate	No	5849	
2	LP001003	Male	Yes	1	Graduate	No	4583	
3	LP001005	Male	Yes	0	Graduate	Yes	3000	
4	LP001006	Male	Yes	0	Not Graduate	No	2583	
5	LP001008	Male	No	0	Graduate	No	6000	
6	LP001011	Male	Yes	2	Graduate	Yes	5417	
7	LP001013	Male	Yes	0	Not Graduate	No	2333	
8	LP001014	Male	Yes	3+	Graduate	No	3036	
9	LP001018	Male	Yes	2	Graduate	No	4006	
10	LP001020	Male	Yes	1	Graduate	No	12841	
11	LP001024	Male	Yes	2	Graduate	No	3200	
12	LP001027	Male	Yes	2	Graduate	*missing*	2500	
13	LP001028	Male	Yes	2	Graduate	No	3073	
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
603	LP002953	Male	Yes	3+	Graduate	No	5703	
604	LP002958	Male	No	0	Graduate	No	3676	
605	LP002959	Female	Yes	1	Graduate	No	12000	
606	LP002960	Male	Yes	0	Not Graduate	No	2400	
607	LP002961	Male	Yes	1	Graduate	No	3400	
608	LP002964	Male	Yes	2	Not Graduate	No	3987	
609	LP002974	Male	Yes	0	Graduate	*No*	3232	
610	LP002978	Female	No	0	Graduate	No	2900	
611	LP002979	Male	Yes	3+	Graduate	No	4106	
612	LP002983	Male	Yes	1	Graduate	No	8072	
613	LP002984	*Male*	Yes	2	Graduate	No	7583	
614	LP002990	Female	No	0	Graduate	*Yes*	4583	

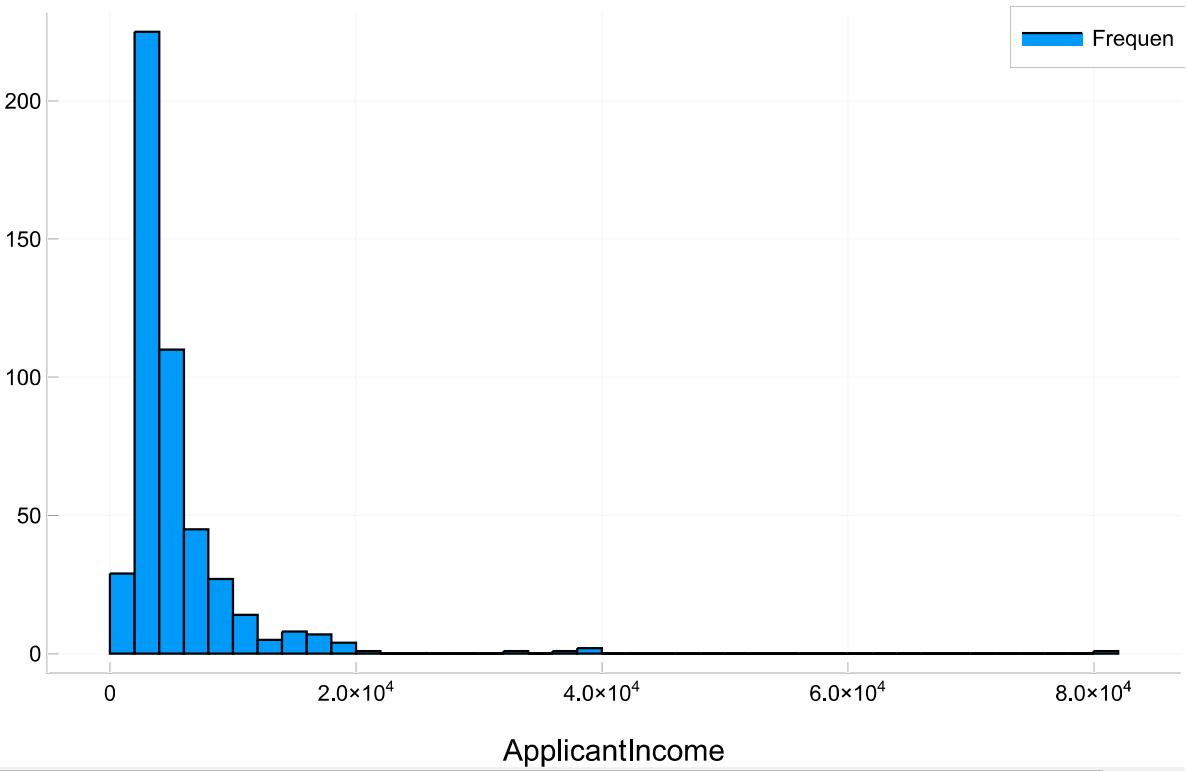
In [5]:
```
train=dropmissing(train)
```

Out[5]: 480×13 DataFrame

Row	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	Coap
	String15	String7	String3	String3	String15	String3	Int64	Float
1	LP001003	Male	Yes	1	Graduate	No	4583	
2	LP001005	Male	Yes	0	Graduate	Yes	3000	
3	LP001006	Male	Yes	0	Not Graduate	No	2583	
4	LP001008	Male	No	0	Graduate	No	6000	
5	LP001011	Male	Yes	2	Graduate	Yes	5417	
6	LP001013	Male	Yes	0	Not Graduate	No	2333	
7	LP001014	Male	Yes	3+	Graduate	No	3036	
8	LP001018	Male	Yes	2	Graduate	No	4006	
9	LP001020	Male	Yes	1	Graduate	No	12841	
10	LP001024	Male	Yes	2	Graduate	No	3200	
11	LP001028	Male	Yes	2	Graduate	No	3073	
12	LP001029	Male	No	0	Graduate	No	1853	
13	LP001030	Male	Yes	2	Graduate	No	1299	
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	
469	LP002948	Male	Yes	2	Graduate	No	5780	
470	LP002953	Male	Yes	3+	Graduate	No	5703	
471	LP002958	Male	No	0	Graduate	No	3676	
472	LP002959	Female	Yes	1	Graduate	No	12000	
473	LP002961	Male	Yes	1	Graduate	No	3400	
474	LP002964	Male	Yes	2	Not Graduate	No	3987	
475	LP002974	Male	Yes	0	Graduate	No	3232	
476	LP002978	Female	No	0	Graduate	No	2900	
477	LP002979	Male	Yes	3+	Graduate	No	4106	
478	LP002983	Male	Yes	1	Graduate	No	8072	
479	LP002984	Male	Yes	2	Graduate	No	7583	
480	LP002990	Female	No	0	Graduate	Yes	4583	

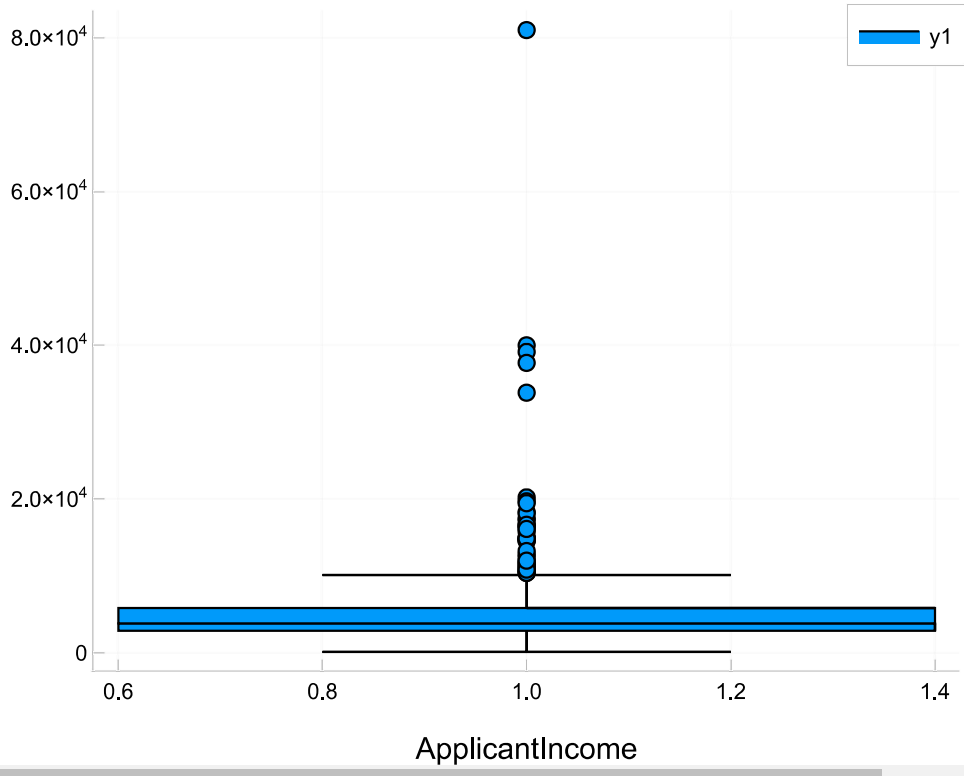
In [6]:
```
Plots.histogram(train[!,"ApplicantIncome"],bins=50,xlabel="ApplicantIncome",labels=
```

Out[6]:



In [7]:
```
using StatsPlots
StatsPlots.boxplot(train[!,"ApplicantIncome"],xlabel="ApplicantIncome")
```

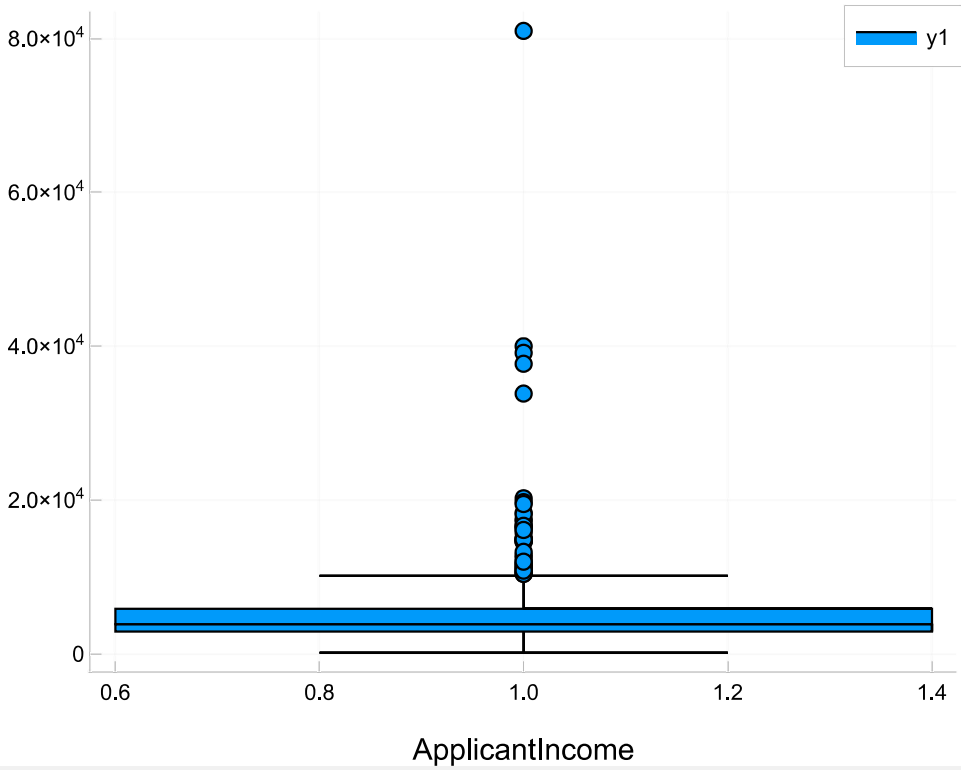
Out[7]:



In [8]:
```
using StatsPlots
StatsPlots.boxplot(train[!,"ApplicantIncome"],
```

```
xlabel="ApplicantIncome")
```

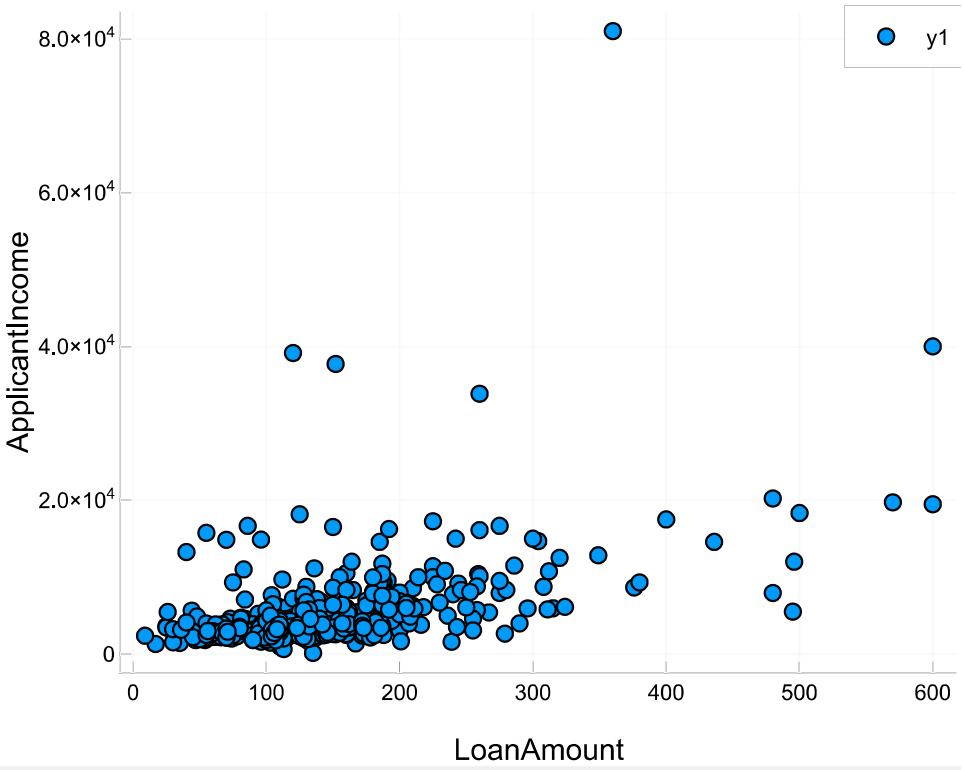
Out[8]:



In [9]:

```
using StatsPlots
StatsPlots.scatter(train[!,"LoanAmount"], train[!,"ApplicantIncome"],
 xlabel="LoanAmount",ylabel="ApplicantIncome")
```

Out[9]:



In [ ]: