```
GET
  FILE='C:\Users\Sunil\AppData\Local\Temp\eM Client temporary files\dvgr1x0o\I
nsects.sav'.
DATASET NAME DataSet1 WINDOW=FRONT.
GLM Week1 Week2 Week3 Week4 BY Group
  /WSFACTOR=Weeks 4 Polynomial
  /METHOD=SSTYPE(3)
  /PLOT=PROFILE(Weeks*Group) TYPE=LINE ERRORBAR=NO MEANREFERENCE=NO YAXIS=AUTO
  /PRINT=DESCRIPTIVE
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Weeks
  /DESIGN=Group.
```

General Linear Model

[DataSet1] C:\Users\Sunil\AppData\Local\Temp\eM Client temporary files\dvgr1x0
o\Insects.sav

Within-Subjects Factors

Measure: MEASURE_1

Weeks	Dependent Variable
1	Week1
2	Week2
3	Week3
4	Week4

Between-Subjects Factors

		Value Label	N
Group	1	Chemical	20
	2	Microbial	20
	3	Predator	20

Descriptive Statistics

	Group	Mean	Std. Deviation	N
Week 1	Chemical	91.30	35.223	20
	Microbial	95.35	33.697	20
	Predator	150.55	31.205	20
	Total	112.40	42.680	60
Week 2	Chemical	123.90	25.973	20
	Microbial	154.60	35.223	20
	Predator	94.95	29.103	20
	Total	124.48	38.637	60
Week 3	Chemical	137.75	31.431	20
	Microbial	142.45	32.990	20
	Predator	101.85	26.966	20
	Total	127.35	35.174	60
Week 4	Chemical	146.95	29.129	20
	Microbial	96.35	34.584	20
	Predator	149.00	30.178	20
	Total	130.77	39.430	60

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Weeks	Pillai's Trace	.171	3.778[b]	3.000	55.000	.015
	Wilks' Lambda	.829	3.778[b]	3.000	55.000	.015
	Hotelling's Trace	.206	3.778[b]	3.000	55.000	.015
	Roy's Largest Root	.206	3.778[b]	3.000	55.000	.015
Weeks * Group	Pillai's Trace	.965	17.399	6.000	112.000	.000
	Wilks' Lambda	.234	19.530[b]	6.000	110.000	.000
	Hotelling's Trace	2.415	21.738	6.000	108.000	.000
	Roy's Largest Root	1.988	37.103[c]	3.000	56.000	.000

a. Design: Intercept + Group
   Within Subjects Design: Weeks

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser
Weeks	.980	1.144	5	.950	.986

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Weeks	1.000	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept + Group
   Within Subjects Design: Weeks

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
Weeks	Sphericity Assumed	11493.233	3	3831.078	4.167
	Greenhouse-Geisser	11493.233	2.959	3883.820	4.167
	Huynh-Feldt	11493.233	3.000	3831.078	4.167
	Lower-bound	11493.233	1.000	11493.233	4.167
Weeks * Group	Sphericity Assumed	134399.292	6	22399.882	24.366
	Greenhouse-Geisser	134399.292	5.919	22708.258	24.366
	Huynh-Feldt	134399.292	6.000	22399.882	24.366
	Lower-bound	134399.292	2.000	67199.646	24.366
Error(Weeks)	Sphericity Assumed	157203.475	171	919.319	
	Greenhouse-Geisser	157203.475	168.678	931.975	
	Huynh-Feldt	157203.475	171.000	919.319	
	Lower-bound	157203.475	57.000	2757.956	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.
Weeks	Sphericity Assumed	.007
	Greenhouse-Geisser	.007
	Huynh-Feldt	.007
	Lower-bound	.046
Weeks * Group	Sphericity Assumed	.000
	Greenhouse-Geisser	.000
	Huynh-Feldt	.000
	Lower-bound	.000
Error(Weeks)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

| Source	Weeks	Type III Sum of Squares	df	Mean Square	F	Sig.
Weeks	Linear	10080.403	1	10080.403	10.831	.002
	Quadratic	1126.667	1	1126.667	1.154	.287
	Cubic	286.163	1	286.163	.336	.564
Weeks * Group	Linear	22697.022	2	11348.511	12.194	.000
	Quadratic	109892.058	2	54946.029	56.274	.000
	Cubic	1810.212	2	905.106	1.064	.352
Error(Weeks)	Linear	53048.775	57	930.680		
	Quadratic	55655.275	57	976.408		
	Cubic	48499.425	57	850.867		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	3675375.000	1	3675375.000	3065.388	.000
Group	324.475	2	162.237	.135	.874
Error	68342.525	57	1198.992		

Profile Plots

Estimated Marginal Means of MEASURE_1
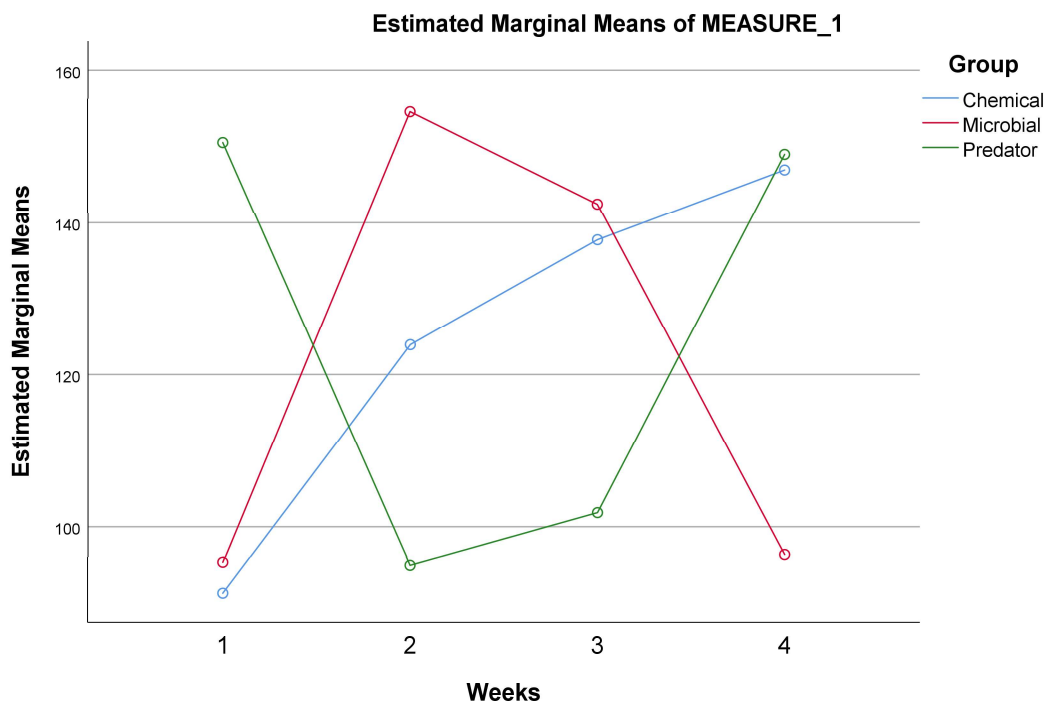
```
NEW FILE.
DATASET NAME DataSet2 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
DATASET CLOSE DataSet2.
NEW FILE.
DATASET NAME DataSet3 WINDOW=FRONT.
DATASET ACTIVATE DataSet1.
DATASET CLOSE DataSet3.
NEW FILE.
DATASET NAME DataSet5 WINDOW=FRONT.
DATASET ACTIVATE DataSet5.
```

```
DATASET CLOSE DataSet1.
PRESERVE.
SET DECIMAL DOT.

GET DATA  /TYPE=TXT
  /FILE="C:\R_Files\Statistics-and-Research-Methods\11_23_19 - ANOVA - One wit
hin_One Between\data\Insects-06.dat"
  /ENCODING='UTF8'
  /DELCASE=LINE
  /DELIMITERS=" "
  /ARRANGEMENT=DELIMITED
  /FIRSTCASE=1
  /LEADINGSPACES IGNORE=YES
  /MULTIPLESPACES IGNORE=YES
  /DATATYPEMIN PERCENTAGE=95.0
  /VARIABLES=
  GROUP AUTO
  WEEK1 AUTO
  WEEK2 AUTO
  WEEK3 AUTO
  WEEK4 AUTO
  /MAP.
RESTORE.

CACHE.
EXECUTE.

Data written to the working file.
5 variables and 60 cases written.
Variable: GROUP              Type: Number  Format : F1
Variable: WEEK1              Type: Number  Format : F3
Variable: WEEK2              Type: Number  Format : F3
Variable: WEEK3              Type: Number  Format : F3
Variable: WEEK4              Type: Number  Format : F3

DATASET NAME DataSet6 WINDOW=FRONT.

SAVE OUTFILE='C:\R_Files\Statistics-and-Research-Methods\11_23_19 - ANOVA - On
e within_One '+
    'Between\data\Will_DATA.sav'
  /COMPRESSED.
DATASET ACTIVATE DataSet6.
```

```
DATASET CLOSE DataSet5.
* Encoding: UTF-8.
GLM Week1 Week2 Week3 Week4 BY Group
  /WSFACTOR=Weeks 4 Polynomial
  /METHOD=SSTYPE(3)
  /PLOT=PROFILE(Weeks*Group) TYPE=LINE ERRORBAR=NO MEANREFERENCE=NO YAXIS=AUTO
  /PRINT=DESCRIPTIVE
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=Weeks
  /DESIGN=Group.
```

General Linear Model

Within-Subjects Factors

Measure: MEASURE_1

Weeks	Dependent Variable
1	WEEK1
2	WEEK2
3	WEEK3
4	WEEK4

Between-Subjects Factors

		N
GROUP	1	20
	2	20
	3	20

Descriptive Statistics

	GROUP	Mean	Std. Deviation	N
WEEK1	1	101.05	37.159	20
	2	92.65	36.394	20
	3	150.55	31.152	20
	Total	114.75	42.981	60
WEEK2	1	115.75	23.337	20
	2	155.55	35.525	20
	3	92.15	16.937	20
	Total	121.15	37.018	60
WEEK3	1	148.80	31.250	20
	2	151.25	26.606	20
	3	107.55	33.590	20
	Total	135.87	36.256	60
WEEK4	1	157.90	47.687	20
	2	99.45	34.201	20
	3	148.20	22.064	20
	Total	135.18	43.943	60

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df	Sig.
Weeks	Pillai's Trace	.283	7.233[b]	3.000	55.000	.000
	Wilks' Lambda	.717	7.233[b]	3.000	55.000	.000
	Hotelling's Trace	.395	7.233[b]	3.000	55.000	.000
	Roy's Largest Root	.395	7.233[b]	3.000	55.000	.000
Weeks * GROUP	Pillai's Trace	.969	17.531	6.000	112.000	.000
	Wilks' Lambda	.243	18.822[b]	6.000	110.000	.000
	Hotelling's Trace	2.236	20.127	6.000	108.000	.000
	Roy's Largest Root	1.734	32.366[c]	3.000	56.000	.000

a. Design: Intercept + GROUP
   Within Subjects Design: Weeks

b. Exact statistic

c. The statistic is an upper bound on F that yields a lower bound on the significance level.

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser
Weeks	.921	4.580	5	.469	.946

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Epsilon[b] Huynh-Feldt	Lower-bound
Weeks	1.000	.333

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. Design: Intercept + GROUP
   Within Subjects Design: Weeks

b. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
Weeks	Sphericity Assumed	19775.646	3	6591.882	6.460
	Greenhouse-Geisser	19775.646	2.837	6970.899	6.460
	Huynh-Feldt	19775.646	3.000	6591.882	6.460
	Lower-bound	19775.646	1.000	19775.646	6.460
Weeks * GROUP	Sphericity Assumed	141532.492	6	23588.749	23.117
	Greenhouse-Geisser	141532.492	5.674	24945.045	23.117
	Huynh-Feldt	141532.492	6.000	23588.749	23.117
	Lower-bound	141532.492	2.000	70766.246	23.117
Error(Weeks)	Sphericity Assumed	174487.613	171	1020.395	
	Greenhouse-Geisser	174487.613	161.702	1079.066	
	Huynh-Feldt	174487.613	171.000	1020.395	
	Lower-bound	174487.613	57.000	3061.186	

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Sig.
Weeks	Sphericity Assumed	.000
	Greenhouse-Geisser	.000
	Huynh-Feldt	.000
	Lower-bound	.014
Weeks * GROUP	Sphericity Assumed	.000
	Greenhouse-Geisser	.000
	Huynh-Feldt	.000
	Lower-bound	.000
Error(Weeks)	Sphericity Assumed	
	Greenhouse-Geisser	
	Huynh-Feldt	
	Lower-bound	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Weeks	Type III Sum of Squares	df	Mean Square	F	Sig.
Weeks	Linear	17335.601	1	17335.601	19.642	.000
	Quadratic	752.604	1	752.604	.581	.449
	Cubic	1687.441	1	1687.441	1.908	.173
Weeks * GROUP	Linear	24446.292	2	12223.146	13.849	.000
	Quadratic	114239.158	2	57119.579	44.133	.000
	Cubic	2847.042	2	1423.521	1.610	.209
Error(Weeks)	Linear	50307.957	57	882.596		
	Quadratic	73773.487	57	1294.272		
	Cubic	50406.168	57	884.319		

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	3854974.537	1	3854974.537	3473.832	.000
GROUP	2054.775	2	1027.388	.926	.402
Error	63253.937	57	1109.718		

Profile Plots

Estimated Marginal Means of MEASURE_1