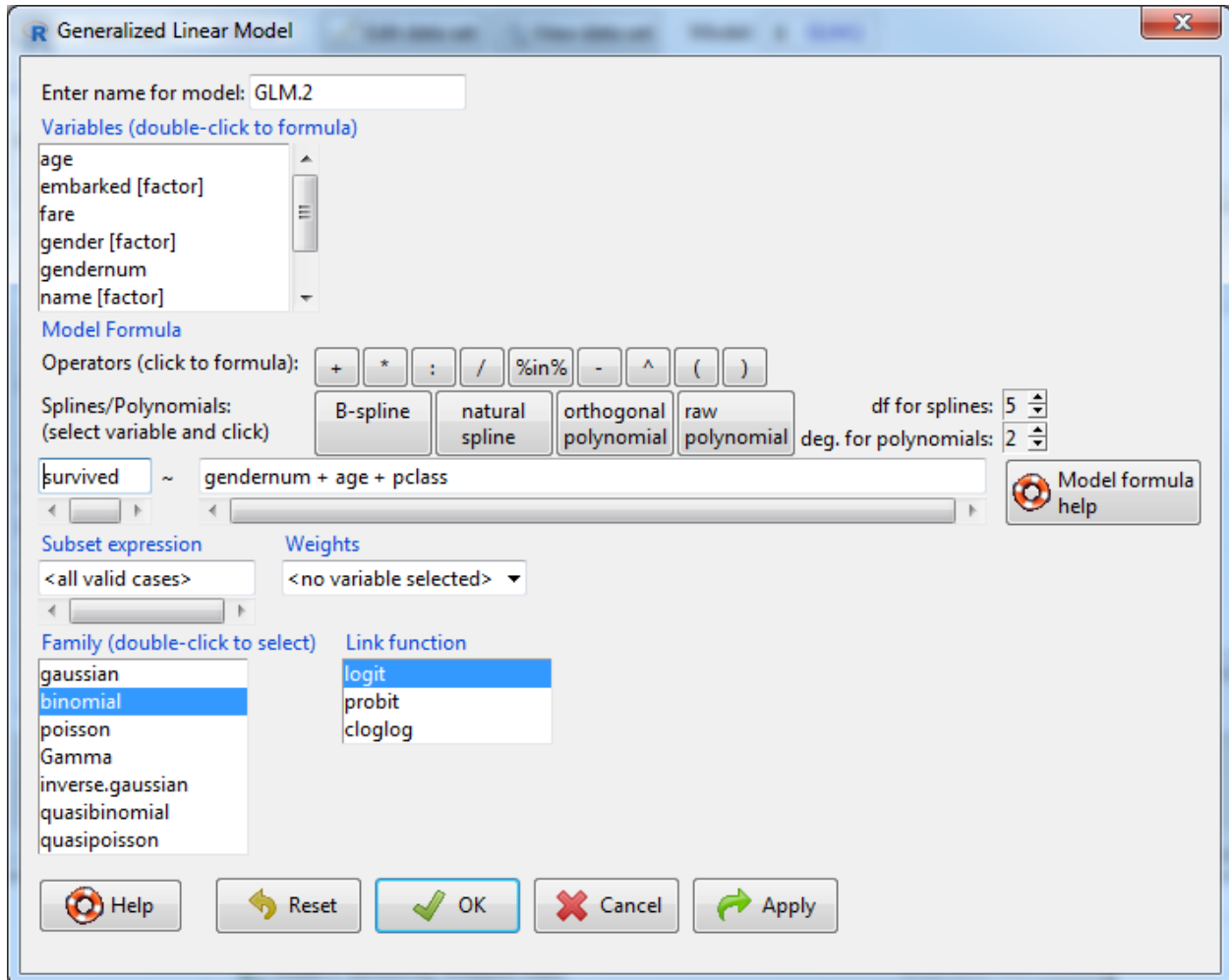


Titanic Example

Logit – Main Effects only

Y = survived

X = gendernum, age, pclass



The image shows the 'R Generalized Linear Model' dialog box. The 'Enter name for model' field contains 'GLM.2'. The 'Variables (double-click to formula)' list includes 'age', 'embarked [factor]', 'fare', 'gender [factor]', 'gendernum', and 'name [factor]'. The 'Model Formula' section shows the formula 'survived ~ gendernum + age + pclass'. The 'Splines/Polynomials' section has buttons for 'B-spline', 'natural spline', 'orthogonal polynomial', and 'raw polynomial', with 'df for splines' set to 5 and 'deg. for polynomials' set to 2. The 'Subset expression' is '<all valid cases>' and the 'Weights' are '<no variable selected>'. The 'Family (double-click to select)' list includes 'gaussian', 'binomial', 'poisson', 'Gamma', 'inverse.gaussian', 'quasibinomial', and 'quasipoisson'. The 'Link function' list includes 'logit', 'probit', and 'cloglog'. The 'logit' link function is selected. At the bottom are buttons for 'Help', 'Reset', 'OK', 'Cancel', and 'Apply'.

Coefficients:

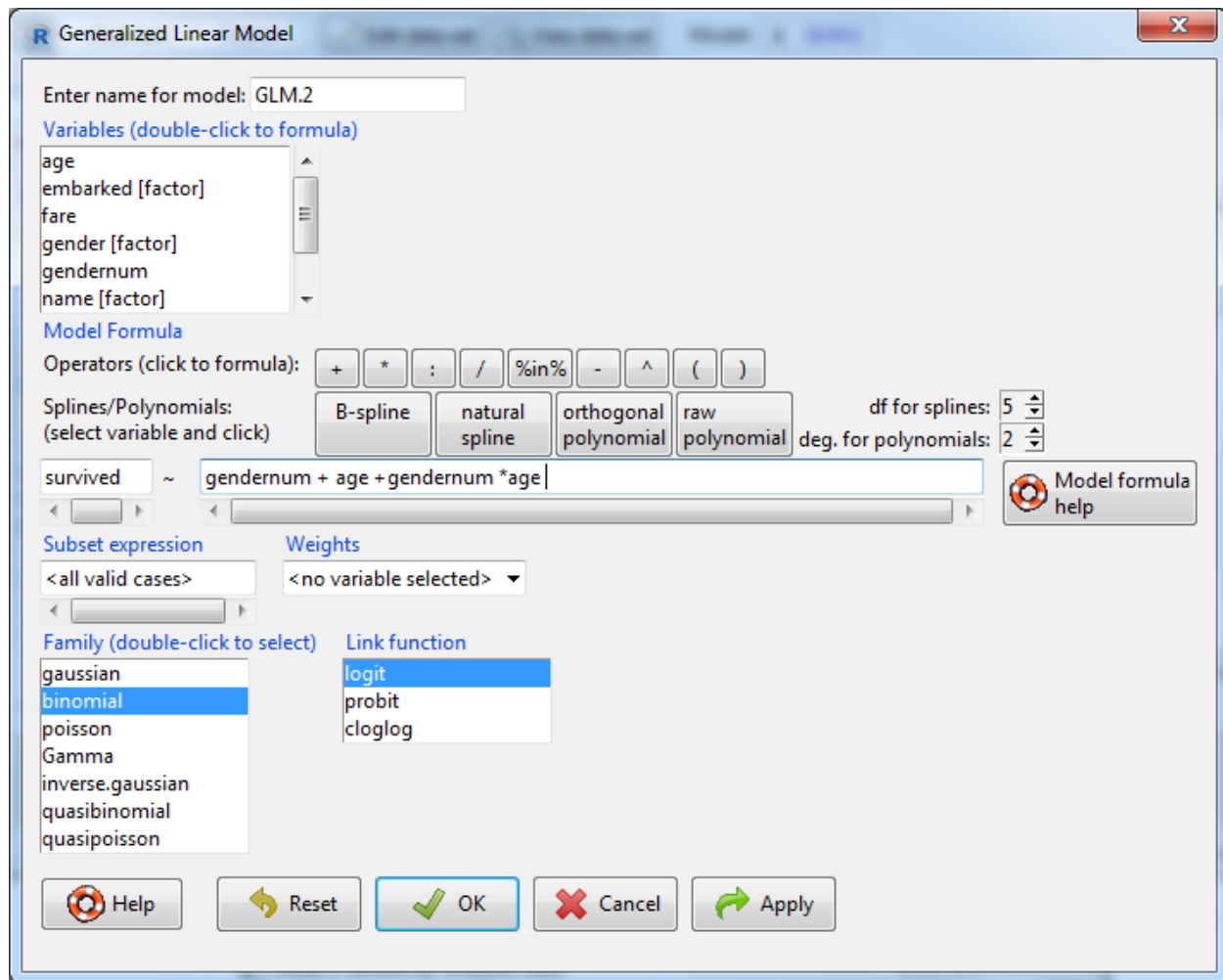
	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	4.58927	0.40572	11.311	< 2e-16	***
gendernum	-2.49738	0.16612	-15.034	< 2e-16	***
age	-0.03388	0.00628	-5.395	6.84e-08	***
pclass	-1.13324	0.11173	-10.143	< 2e-16	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Logit – Moderating Effect (Interaction)

Y = survived

X = gendernum, age, gendernum*age



The image shows the 'R Generalized Linear Model' dialog box. The 'Enter name for model' field contains 'GLM.2'. The 'Variables (double-click to formula)' list includes 'age', 'embarked [factor]', 'fare', 'gender [factor]', 'gendernum', and 'name [factor]'. The 'Model Formula' section shows the formula 'survived ~ gendernum + age + gendernum * age' in the text box. The 'Operators' section includes buttons for '+', '*', ':', '/', '%in%', '-', '^', '(', and ')'. The 'Splines/Polynomials' section has buttons for 'B-spline', 'natural spline', 'orthogonal polynomial', and 'raw polynomial', with 'df for splines' set to 5 and 'deg. for polynomials' set to 2. The 'Subset expression' is '<all valid cases>' and the 'Weights' is '<no variable selected>'. The 'Family (double-click to select)' list includes 'gaussian', 'binomial', 'poisson', 'Gamma', 'inverse.gaussian', 'quasibinomial', and 'quasipoisson'. The 'Link function' list includes 'logit', 'probit', and 'cloglog'. The 'logit' link function is selected. At the bottom are buttons for 'Help', 'Reset', 'OK', 'Cancel', and 'Apply'.

Coefficients:

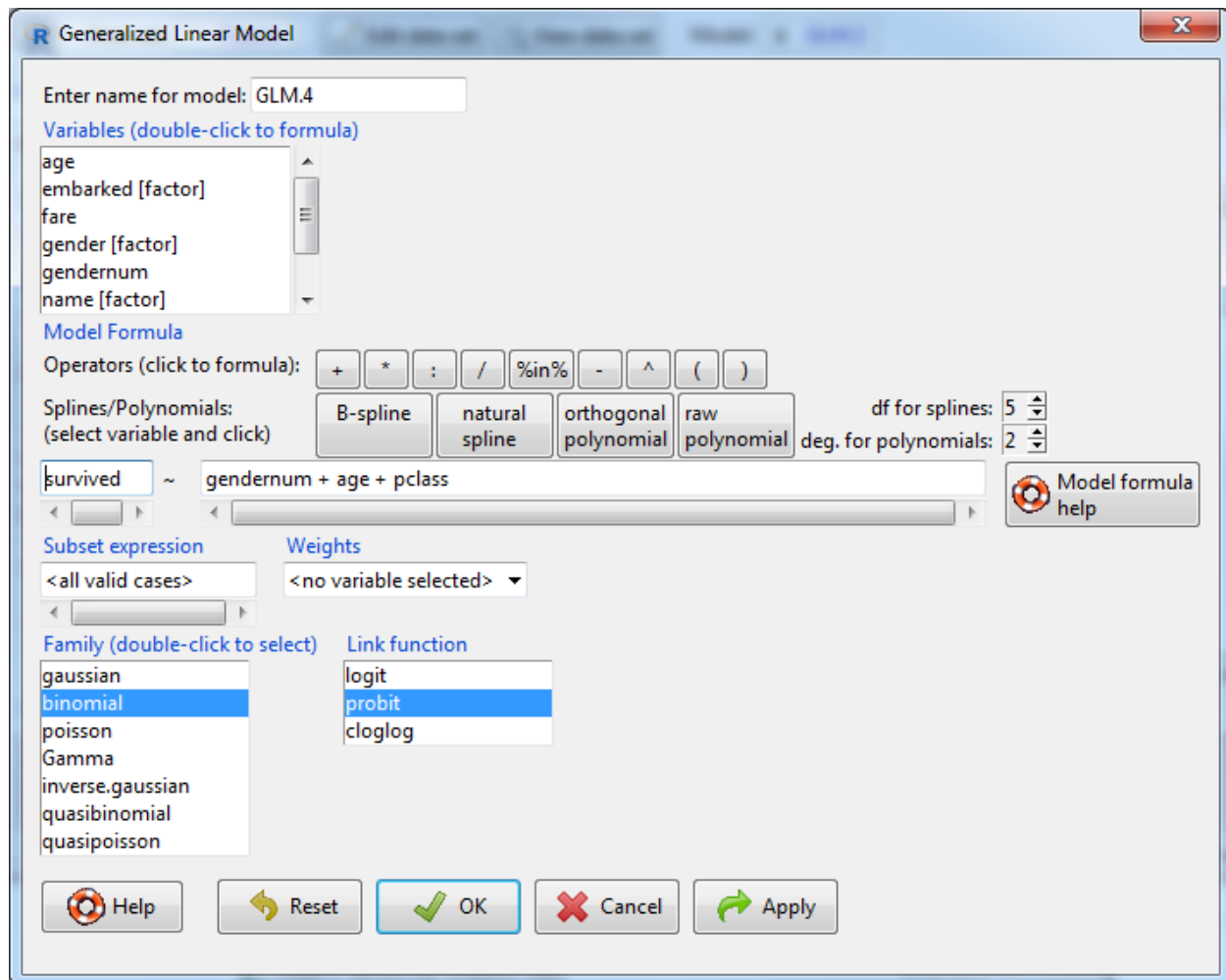
	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	0.493381	0.254188	1.941	0.052257	.
gendernum	-1.154139	0.339337	-3.401	0.000671	***
age	0.022516	0.008535	2.638	0.008342	**
gendernum:age	-0.046276	0.011216	-4.126	3.69e-05	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Probit – Main Effects only

Y = survived

X = gendernum, age, pclass



The image shows the 'R Generalized Linear Model' dialog box. The 'Enter name for model' field contains 'GLM.4'. The 'Variables (double-click to formula)' list includes 'age', 'embarked [factor]', 'fare', 'gender [factor]', 'gendernum', and 'name [factor]'. The 'Model Formula' section shows the formula 'survived ~ gendernum + age + pclass'. The 'Splines/Polynomials' section has buttons for 'B-spline', 'natural spline', 'orthogonal polynomial', and 'raw polynomial', with 'df for splines' set to 5 and 'deg. for polynomials' set to 2. The 'Subset expression' is '<all valid cases>' and the 'Weights' are '<no variable selected>'. The 'Family (double-click to select)' list includes 'gaussian', 'binomial', 'poisson', 'Gamma', 'inverse.gaussian', 'quasibinomial', and 'quasipoisson'. The 'Link function' list includes 'logit', 'probit', and 'cloglog'. The 'probit' link function is selected. At the bottom are buttons for 'Help', 'Reset', 'OK', 'Cancel', and 'Apply'.

Coefficients:

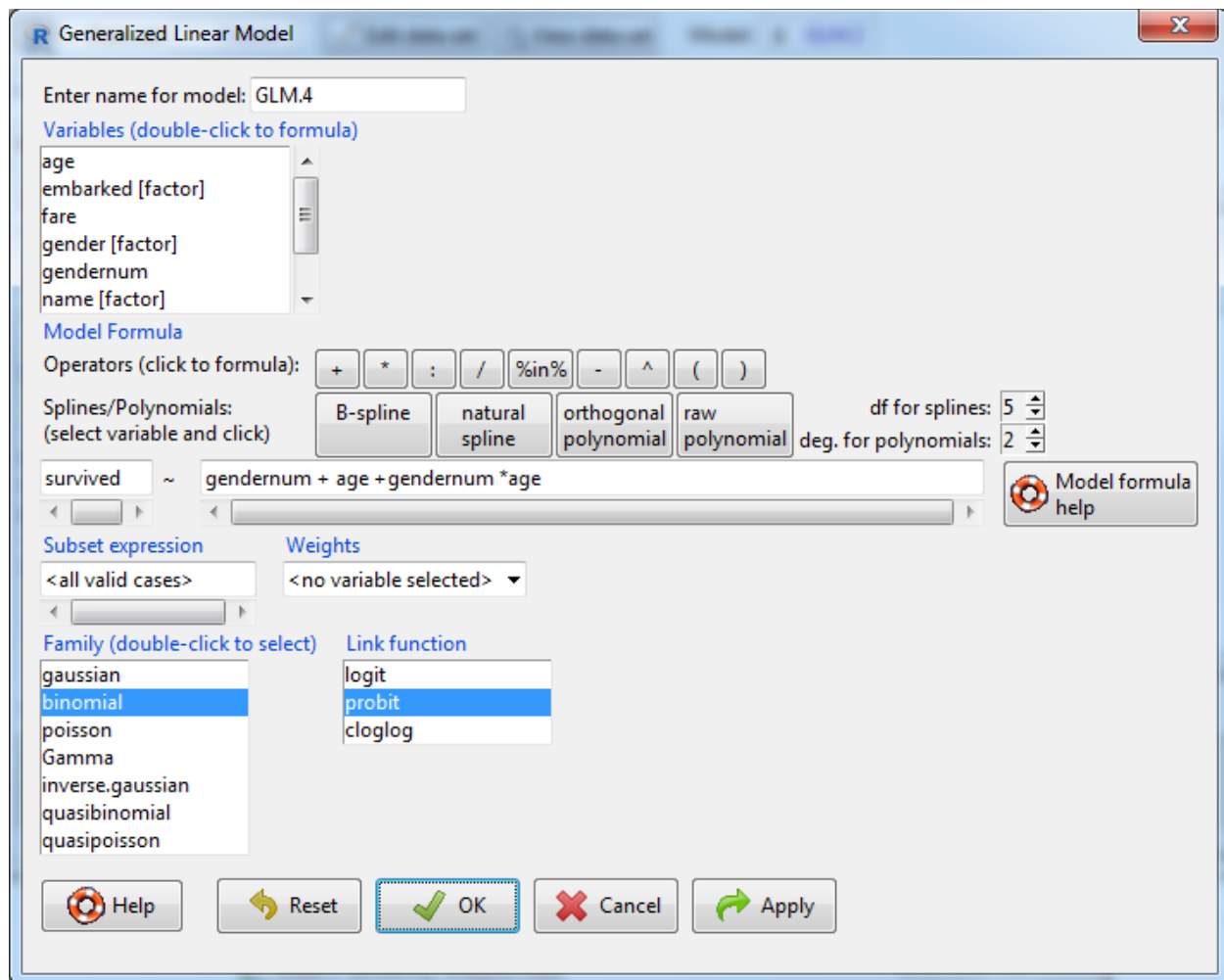
	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	2.643214	0.223143	11.845	< 2e-16	***
gendernum	-1.483534	0.093742	-15.826	< 2e-16	***
age	-0.019074	0.003577	-5.332	9.71e-08	***
pclass	-0.640537	0.062389	-10.267	< 2e-16	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Probit – Moderating Effect (Interaction)

Y = survived

X = gendernum, age, gendernum*age



The image shows the 'Generalized Linear Model' dialog box in R. The 'Enter name for model' field contains 'GLM.4'. The 'Variables (double-click to formula)' list includes 'age', 'embarked [factor]', 'fare', 'gender [factor]', 'gendernum', and 'name [factor]'. The 'Model Formula' section shows the formula 'survived ~ gendernum + age + gendernum * age'. The 'Splines/Polynomials' section has buttons for 'B-spline', 'natural spline', 'orthogonal polynomial', and 'raw polynomial', with 'df for splines' set to 5 and 'deg. for polynomials' set to 2. The 'Subset expression' is '<all valid cases>' and 'Weights' is '<no variable selected>'. The 'Family (double-click to select)' list includes 'gaussian', 'binomial', 'poisson', 'Gamma', 'inverse.gaussian', 'quasibinomial', and 'quasipoisson'. The 'Link function' list includes 'logit', 'probit', and 'cloglog'. The 'probit' link function is selected. At the bottom are buttons for 'Help', 'Reset', 'OK', 'Cancel', and 'Apply'.

Coefficients:

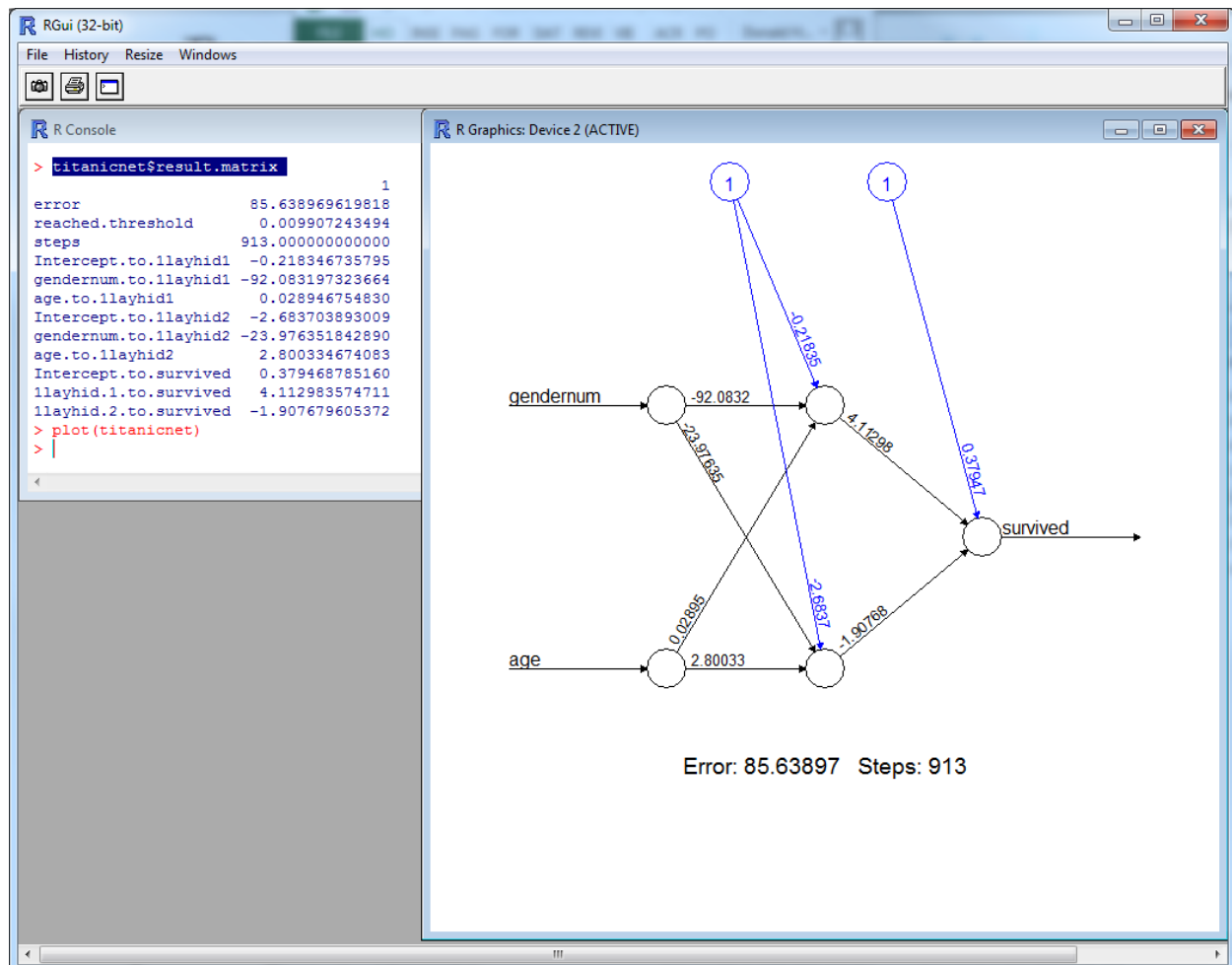
	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	0.314724	0.151668	2.075	0.037978	*
gendernum	-0.756896	0.200050	-3.784	0.000155	***
age	0.013277	0.004946	2.684	0.007264	**
gendernum:age	-0.026173	0.006409	-4.084	4.43e-05	***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Neural Network

Output = survived

Input = gendernum, age



```
Intercept.to.1layhid1 -0.218346735795
gendernum.to.1layhid1 -92.083197323664
age.to.1layhid1 0.028946754830
Intercept.to.1layhid2 -2.683703893009
gendernum.to.1layhid2 -23.976351842890
age.to.1layhid2 2.800334674083
Intercept.to.survived 0.379468785160
1layhid.1.to.survived 4.112983574711
1layhid.2.to.survived -1.907679605372
```