CLAIMS

1. A curriculum package development method, comprising:

receiving curriculum information of a curriculum package from a client;

receiving a running instruction of the client and running an experiment comprised in the curriculum information;

sending a running result of the experiment to the client; and

generating a curriculum package capable of being released on a curriculum application platform.

2. The method according to claim 1, further comprising:

generating a preview interface for previewing a layout of the experiment and/or the running result of the experiment, and sending the preview interface to the client for display; or

in response to a received preview instruction, generating a preview interface for previewing a layout of the experiment and/or the running result of the experiment, and sending the preview interface to the client for display.

3. The method according to claim 1 or 2, wherein the receiving curriculum information of a curriculum package from a client comprises:

receiving an editing instruction sent by a first client for editing the experiment, wherein the client comprises the first client, a login account of the first client is a cooperator account of a cooperator whose identity information meets a preset condition, and the cooperator account has a different permission from an owner account of the curriculum package; and parsing the editing instruction to obtain experimental information of the experiment.

4. The method according to any one of claims 1 to 3, wherein the generating a curriculum package capable of being released on a curriculum application platform comprises:

receiving a curriculum package submission instruction sent by a second client to generate the curriculum package capable of being released on the curriculum application platform, wherein the client comprises the second client, and a login account of the second client is an owner account of the curriculum package; or,

wherein the generating a curriculum package capable of being released on a curriculum application platform comprises:

in response to that the running result of the experiment does not meet a preset experimental result, sending prompt information and the running result to the client, wherein the prompt information is used to prompt a user that the running result of the experiment does not meet the preset experimental result;

adjusting the curriculum information according to a received adjustment instruction entered on the client to obtain adjusted curriculum information; and

in response to that a running result of the experiment in the adjusted curriculum information meets the preset experimental result, determining that a curriculum package corresponding to the adjusted curriculum information is the curriculum package capable of being released on the curriculum application platform.

5. The method according to any one of claims 1 to 4, after the generating a curriculum package capable of being released on a curriculum application platform, the method further comprising:

receiving an update instruction sent by the client for updating the curriculum information;

updating the curriculum information of the curriculum package according to the update instruction to obtain an updated curriculum package; and

storing the updated curriculum package in a database, and/or releasing the updated curriculum package to the curriculum application platform; or,

after the generating a curriculum package capable of being released on a curriculum application platform, the method further comprising:

reviewing the curriculum information of the curriculum package by using a preset lexical library, and/or sending a message indicating review of the curriculum package to a manager side; and

releasing the curriculum package on the curriculum application platform in response to that the curriculum information of the curriculum package passes the review, and/or in response to receiving a notice, sent by the manager side, indicating that the curriculum package passes the review.

6. The method according to any one of claims 1 to 5, further comprising:

receiving curriculum information of another curriculum package from a third client, wherein the client comprises the first client and the third client, the login account of the first client is an owner account of the curriculum package, and a login account of the third client is

an owner account of the another curriculum package that is different from the curriculum package;

integrating the curriculum information of the another curriculum package with the curriculum package to obtain an integrated curriculum package;

receiving an editing instruction sent by the third client or the first client for editing the integrated curriculum package; and

in response to the editing instruction for editing the integrated curriculum package, editing curriculum information of the integrated curriculum package.

7. The method according to any one of claims 1 to 6, wherein the curriculum information comprises an import instruction and an experimental procedure,

wherein the running an experiment comprised in the curriculum information comprises:

executing the import instruction to import a data package set required for running the experiment; and

performing the experimental procedure based on the data package set on which the experimental procedure depends.

~~8. The method according to any one of claims 1 to 7, wherein the generating a curriculum package capable of being released on a curriculum application platform comprises:~~

~~in response to that the running result of the experiment does not meet a preset experimental result, sending prompt information and the running result to the client, wherein the prompt information is used to prompt a user that the running result of the experiment does not meet the preset experimental result;~~

~~adjusting the curriculum information according to a received adjustment instruction entered on the client to obtain adjusted curriculum information; and~~

~~in response to that a running result of the experiment in the adjusted curriculum information meets the preset experimental result, determining that a curriculum package corresponding to the adjusted curriculum information is the curriculum package capable of being released on the curriculum application platform.~~

~~9. The method according to any one of claims 1 to 8, after the generating a curriculum package capable of being released on a curriculum application platform, the method further comprising:~~

~~reviewing the curriculum information of the curriculum package by using a preset lexical library, and/or sending a message indicating review of the curriculum package to a manager side; and~~

~~releasing the curriculum package on the curriculum application platform in response to that the curriculum information of the curriculum package passes the review, and/or in response to receiving a notice, sent by the manager side, indicating that the curriculum package passes the review.~~

~~10. The method according to any one of claims 1 to 9, further comprising:~~

~~in response to receiving login information entered by a developer on the client, sending a fill-in template of the curriculum information to the client, to enable the developer to edit the curriculum information through the fill-in template.~~

~~11. The method according to any one of claims 1 to 10, further comprising:~~

~~in response to receiving a permission setting instruction sent by a manager side of the curriculum package, setting an account permission of the developer of the curriculum package.~~

~~12~~8. The method according to any one of claims 1 to ~~11~~7, wherein a running environment for running the experiment in the curriculum package in a case that the curriculum package is not released on the curriculum application platform is the same as a running environment for running the experiment in the curriculum package on the curriculum application platform.

~~13~~9. A curriculum package development method, comprising:

obtaining curriculum information of a curriculum package and sending the curriculum information to a server;

in response to receiving a running instruction for an experiment comprised in the curriculum information, sending the running instruction to the server; and

receiving and displaying the running result of the experiment comprised in the curriculum information of the curriculum package.

~~14~~10. The method according to claim ~~13~~9, comprising: in response to that the running result does not meet the preset experimental result, receiving an adjustment instruction for the curriculum information, and sending the adjustment instruction to the server, to enable an adjusted curriculum package to be released on the curriculum application platform~~.~~; or,

~~15. The method according to claim 13 or 14, comprising:~~ in response to that the running result meets the preset experimental result, receiving a submission instruction for the curriculum package, and sending the submission instruction to the server, to enable the curriculum package to be released on the curriculum application platform.

~~16. The method according to claim 13, further comprising:~~

~~displaying a preview interface for previewing a layout of the experiment and/or the running result of the experiment.~~

~~17~~11. The method according to claim ~~16~~9, further comprising:

sending, to the server, a received modification instruction that is fed back based on the preview interface and is configured for modifying the curriculum information, to enable the server to modify the curriculum information of the curriculum package according to the modification instruction; or,

sending, to the server, an update instruction for updating the curriculum information, to enable the server to update the curriculum information of the curriculum package according to the update instruction and to obtain an updated curriculum package.

~~18~~12. The method according to claim ~~13 or 14~~9 or 10, further comprising:

sending an invitation instruction to a cooperative development client to invite a user of the cooperative development client to develop the curriculum package together, wherein a login account of the cooperative development client is a cooperator account of a cooperator whose identity information meets a preset development condition.

~~19~~13. The method according to claim ~~18~~12, after the sending an invitation instruction to a cooperative development client to invite a user of the cooperative development client to develop the curriculum package together, the method further comprising:

in response to receiving invitation acceptance information sent by the cooperative development client, setting a development permission of the cooperative development client, wherein the cooperator account has a different permission from an owner account of the curriculum package.

~~20. The method according to claim 13 or 14, further comprising:~~

~~sending, to the server, an update instruction for updating the curriculum information, to enable the server to update the curriculum information of the curriculum package according to the update instruction and to obtain an updated curriculum package.~~

~~21. The method according to any one of claims 13 to 20, further comprising:~~

~~sending curriculum information of another curriculum package to the server, wherein the another curriculum package is a curriculum package different from the curriculum package, and a login account of a current client is an owner account of the another curriculum package;~~

~~receiving curriculum information of an integrated curriculum package returned by the server, wherein the integrated curriculum package is a curriculum package obtained after the curriculum information of the another curriculum package is integrated with the curriculum package; and~~

~~sending, to the server, an editing instruction for editing the integrated curriculum package, to enable the server to edit the curriculum information of the integrated curriculum package.~~

~~22~~14. A curriculum package development method, comprising:

obtaining review information of a curriculum package;

in response to receiving an instruction of for obtaining the curriculum package, obtaining and displaying the curriculum package to be reviewed; and

in response to receiving an indication indicating that the curriculum package passes review, sending, to a server, the indication indicating that the curriculum package passes review, to enable the server to release the curriculum package on the curriculum application platform.

~~23. The method according to claim 22, further comprising:~~

~~granting a permission of developing the curriculum package for an account of a developer who meets a preset development condition, to enable the developer to complete development of the curriculum package.~~

~~24~~15. A curriculum package development apparatus, comprising a first receiving module, a first running module, a first sending module, and a first generation module, wherein:

the first receiving module is configured to receive curriculum information of a curriculum package from a client;

the first running module is configured to receive a running instruction of the client and run an experiment comprised in the curriculum information;

the first sending module is configured to send a running result of the experiment to the client; and

the first generation module is configured to generate a curriculum package capable of being released on a curriculum application platform.

~~25. The apparatus according to claim 24, further comprising:~~

~~a second generation module, configured to generate a preview interface for previewing a layout of the experiment and/or the running result of the experiment, and send the preview interface to the client for display;~~

~~or,~~

~~a third generation module, configured to, in response to a received preview instruction, generate a preview interface for previewing a layout of the experiment and/or the running result of the experiment, and send the preview interface to the client for display.~~

~~26. The apparatus according to claim 24 or 25, wherein the first receiving module comprises:~~

~~a first receiving submodule, configured to receive an editing instruction sent by a first client for editing the experiment, wherein the client comprises the first client, a login account of the first client is a cooperator account of a cooperator whose identity information meets a preset condition, and the cooperator account has a different permission from an owner account of the curriculum package; and parse the editing instruction to obtain experimental information of the experiment.~~

~~27. The apparatus according to any one of claims 24 to 26, wherein the first generation module comprises:~~

~~a first generation submodule, configured to receive a curriculum package submission instruction sent by a second client to generate the curriculum package capable of being released on the curriculum application platform, wherein the client comprises the second client, and a login account of the second client is an owner account of the curriculum package.~~

~~28. The apparatus according to any one of claims 24 to 27, further comprising:~~

~~a second receiving module, configured to receive an update instruction sent by the client for updating the curriculum information;~~

a first updating module, configured to update the curriculum information of the curriculum package according to the update instruction to obtain an updated curriculum package; and

a first releasing module, configured to store the updated curriculum package in a database, and/or release the updated curriculum package on the curriculum application platform.

29. The apparatus according to any one of claims 24 to 28, further comprising:

a third receiving module, configured to receive curriculum information of another curriculum package from a third client, wherein the client comprises the first client and the third client, the login account of the first client is an owner account of the curriculum package, and a login account of the third client is an owner account of the another curriculum package that is different from the curriculum package;

a first integrating module, configured to integrate the curriculum information of the another curriculum package with the curriculum package to obtain an integrated curriculum package;

a fourth receiving module, configured to receive an editing instruction sent by the third client or the first client for editing the integrated curriculum package; and

a first editing module, configured to, in response to the editing instruction for editing the integrated curriculum package, edit curriculum information of the integrated curriculum package.

30. The apparatus according to any one of claims 24 to 29, wherein the curriculum information comprises an import instruction and an experimental procedure,

wherein the first running module comprises:

a first execution submodule, configured to execute the import instruction to import a data package set required for running the experiment; and

a second execution submodule, configured to perform the experimental procedure based on the data package set on which the experimental procedure depends.

31. The apparatus according to any one of claims 24 to 30, wherein the first generation module comprises:

a first sending submodule, configured to, in response to that the running result of the experiment does not meet a preset experimental result, send prompt information and the running result to the client, wherein the prompt information is used to prompt a user that the running result of the experiment does not meet the preset experimental result;

~~a first adjustment submodule, configured to adjust the curriculum information according to a received adjustment instruction entered on the client to obtain adjusted curriculum information; and~~

~~a first determining module, configured to, in response to that a running result of the experiment in the adjusted curriculum information meets the preset experimental result, determine that a curriculum package corresponding to the adjusted curriculum information is the curriculum package capable of being released on the curriculum application platform.~~

~~32. The apparatus according to any one of claims 24 to 31, further comprising:~~

~~a first review module, configured to review the curriculum information of the curriculum package by using a preset lexical library, and/or send a message indicating review of the curriculum package to a manager side; and~~

~~a second releasing module, configured to release the curriculum package on the curriculum application platform in response to that the curriculum information of the curriculum package passes the review, and/or in response to receiving a notice, sent by the manager side, indicating that the curriculum package passes the review.~~

~~33. The apparatus according to any one of claims 24 to 31, further comprising:~~

~~a second sending module, configured to, in response to receiving login information entered by a developer on the client, send a fill-in template of the curriculum information to the client, to enable the developer to edit the curriculum information through the fill-in template.~~

~~34. The apparatus according to any one of claims 24 to 33, further comprising:~~

~~a first setting module, configured to, in response to receiving a permission setting instruction sent by a manager side of the curriculum package, set an account permission of the developer of the curriculum package.~~

~~35. The apparatus according to any one of claims 24 to 34, wherein a running environment for running the experiment in the curriculum package in a case that the curriculum package is not released on the curriculum application platform is the same as a running environment for running the experiment in the curriculum package on the curriculum application platform.~~

~~36~~16. A curriculum package development apparatus, comprising:

a first obtaining module, configured to obtain curriculum information of a curriculum package and send the curriculum information to a server;

a second sending module, configured to, in response to receiving a running instruction for an experiment comprised in the curriculum information, send the running instruction to the server; and

a fifth receiving module, configured to receive and display the running result of the experiment comprised in the curriculum information of the curriculum package.

~~37. The apparatus according to claim 36, further comprising:~~

~~a sixth receiving module, configured to, in response to that the running result does not meet a preset experimental result, receive an adjustment instruction for the curriculum information, and send the adjustment instruction to the server, to enable an adjusted curriculum package to be released on a curriculum application platform.~~

~~38. The apparatus according to claim 36 or 37, further comprising:~~

~~a seventh receiving module, configured to, in response to that the running result meets the preset experimental result, receive a submission instruction for the curriculum package, and send the submission instruction to the server, to enable the curriculum package to be released on the curriculum application platform.~~

~~39. The apparatus according to claim 36, further comprising:~~

~~a first display module, configured to display a preview interface for previewing a layout of the experiment and/or the running result of the experiment.~~

~~40. The apparatus according to claim 39, further comprising:~~

~~a third sending module, configured to send, to the server, a received modification instruction that is fed back based on the preview interface and is configured for modifying the curriculum information, to enable the server to modify the curriculum information of the curriculum package according to the modification instruction.~~

~~41. The apparatus according to claim 36 or 37, further comprising:~~

~~a first invitation module, configured to send an invitation instruction to a cooperative development client to invite a user of the cooperative development client to develop the curriculum package together, wherein a login account of the cooperative development client is~~

~~a cooperator account of a cooperator whose identity information meets a preset development condition.~~

~~42. The apparatus according to claim 40, further comprising:~~

~~a second setting module, configured to, in response to receiving invitation acceptance information sent by the cooperative development client, set a development permission of the cooperative development client, wherein the cooperator account has a different permission from an owner account of the curriculum package.~~

~~43. The apparatus according to claim 36 or 37, further comprising:~~

~~a second updating module, configured to send, to the server, an update instruction for updating the curriculum information, to enable the server to update the curriculum information of the curriculum package according to the update instruction to obtain an updated curriculum package.~~

~~44. The apparatus according to any one of claims 36 to 43, further comprising:~~

~~a fourth sending module, configured to send curriculum information of another curriculum package to the server, wherein the another curriculum package is a curriculum package different from the curriculum package, and a login account of a current client is an owner account of the another curriculum package;~~

~~an eighth receiving module, configured to receive curriculum information of an integrated curriculum package returned by the server, wherein the integrated curriculum package is a curriculum package obtained after the curriculum information of the another curriculum package is integrated with the curriculum package; and~~

~~a fifth sending module, configured to send, to the server, an editing instruction for editing the integrated curriculum package, to enable the server to edit the curriculum information of the integrated curriculum package.~~

~~45~~17. A curriculum package development apparatus, comprising:

a second obtaining module, configured to obtain review information of a curriculum package;

a third obtaining module, configured to, in response to receiving an instruction for obtaining the curriculum package, obtain and display the curriculum package to be reviewed; and

a sixth sending module, configured to, in response to receiving an indication indicating that the curriculum package passes review, send, to a server, the indication indicating that the curriculum package passes review, to enable the server to release the curriculum package on the curriculum application platform.

~~46. The apparatus according to claim 45, further comprising:~~

~~a first granting module, configured to grant a permission of developing the curriculum package for an account of a developer who meets a preset development condition, to enable the developer to complete development of the curriculum package.~~

~~47~~18. A computer storage medium, storing a computer executable instruction, wherein after the computer executable instruction is executed, operations of the method according to any one of claims 1 to ~~12~~ 8 can be implemented, or operations of the method according to any one of claims ~~13 to 21~~9 to 13 can be implemented, or operations of the method according to claim ~~22 or 23~~14 can be implemented.

~~48. A curriculum package development system, comprising at least:~~

~~a server, configured to implement operations of the method according to any one of claims 1 to 12; and~~

~~a client, configured to implement operations of the method according to any one of claims 13 to 21.~~

~~49. The development system according to claim 17, further comprising:~~

~~a manager side, configured to implement operations of the method according to claim 22 or 23.~~

~~50~~19. A computer device, comprising: a memory and a processor, wherein the memory stores a computer executable instruction, and when running the computer executable instruction on the memory, the processor can implement operations of the method according to any one of claims 1 to ~~12~~8, or operations of the method according to any one of claims ~~13 to 21~~9 to 13, or operations of the method according to claim ~~22 or 23~~14.

~~51~~20. A computer program product, comprising: a computer executable instruction, wherein after the computer executable instruction is executed, operations of the method

according to any one of claims 1 to ~~12~~ 8 can be implemented, or operations of the method according to any one of claims ~~13 to 21~~9 to 13 can be implemented, or operations of the method according to claim ~~22 or 23~~14 can be implemented.