

CLAIMS

What is claimed is:

1. A system for providing a development application having a tiered application pattern, the system comprising:
 - an electronic processor configured to
 - receive, with a gateway layer, a request from a user device, wherein the request is associated with a function,
 - route, with the gateway layer, the request to an application layer, wherein the application layer provides application functionality corresponding to the function,
 - in response to receiving the request from the gateway layer, perform, with the application layer, the application functionality corresponding to the function, wherein the application functionality includes generating an application event,
 - receive, with an event stream layer, the application event from the application layer,
 - access, with a data processing layer, the application event,
 - process, with the data processing layer, the application event, and
 - transmit, with the data processing layer, the processed application event to a data storage layer, wherein the processed application event is stored in the data storage layer.
2. The system of claim 1, wherein the data storage layer includes at least one selected from a group consisting of a managed database, a file system, an alternative data storage technology, a machine learning model database, and an artificial intelligence model database.
3. The system of claim 1, wherein the gateway layer includes an application programming interface (API) gateway.
4. The system of claim 1, wherein the electronic processor is further configured to access, with the application layer, data stored in the data storage layer.
5. The system of claim 4, wherein the data stored in the data storage layer includes the processed application event.

6. The system of claim 4, wherein the data stored in the data storage layer includes at least one selected from a group consisting of a machine learning model and an artificial intelligence model.
7. The system of claim 1, wherein the electronic processor is configured to process, with the data processing layer, the application event by
 - extracting the application event from the event storage,
 - transforming the application event, and
 - loading the transformed application event to the data storage layer.
8. The system of claim 1, wherein the application layer includes a load balancer configured to manage a distribution of workloads associated with the request received by the application layer.
9. The system of claim 1, wherein the event stream layer includes an event aggregator configured to aggregate incoming application events.
10. The system of claim 1, wherein the application functionality corresponds to at least one selected from a group consisting of an event retrieval function, an authentication function, an authorization function, a data processing function, and a reporting function.

11. A method for providing a development application having a tiered application pattern, the method comprising:

receiving, within a gateway layer with an electronic processor, a request from a user device, wherein the request is associated with a function;

routing, within the gateway layer with the electronic processor, the request to an application layer, wherein the application layer provides application functionality corresponding to the function;

in response to receiving the request from the gateway layer, performing, within the application layer with the electronic processor, the application functionality corresponding to the function, wherein the application functionality includes generating an application event;

receiving, within an event stream layer with the electronic processor, the application event from the application layer;

accessing, within a data processing layer with the electronic processor, the application event;

processing, within the data processing layer with the electronic processor, the application event;

transmitting, within the data processing layer with the electronic processor, the processed application event to a data storage layer; and

storing, within the data storage layer, the processed application event.

12. The method of claim 11, further comprising:

accessing, with the application layer, data stored in the data storage layer.

13. The method of claim 12, wherein accessing, with the application layer, data stored in the data storage layer includes accessing, with the application layer, the processed application event.

14. The method of claim 12, wherein accessing, with the application layer, data stored in the data storage layer includes accessing, with the application layer, at least one selected from a group consisting of a machine learning model and an artificial intelligence model.

15. The method of claim 11, wherein processing, with the data processing layer, the application event includes

extracting, with the data processing layer, the application event from the event storage,

transforming, with the data processing layer, the application event, and

loading, with the data processing layer, the transformed application event to the data storage layer.

16. A non-transitory, computer-readable medium storing instructions that, when executed by an electronic processor, perform a set of functions, the set of functions comprising:

receiving, within a gateway layer, a request from a user device, wherein the request is associated with a function;

routing, within the gateway layer, the request to an application layer, wherein the application layer provides application functionality corresponding to the function;

in response to receiving the request from the gateway layer, performing, within the application layer, the application functionality corresponding to the function, wherein the application functionality includes generating an application event;

receiving, within an event stream layer, the application event from the application layer;

accessing, within a data processing layer, the application event from an event storage;

processing, within the data processing layer, the application event; and

transmitting, within the data processing layer, the processed application event to a data storage layer, wherein the processed application event is stored in the data storage layer.

17. The computer-readable medium of claim 11, wherein the set of functions further comprises:

accessing, with the application layer, data stored in the data storage layer.

18. The computer-readable medium of claim 17, wherein accessing, with the application layer, data stored in the data storage layer includes accessing, with the application layer, the processed application event.

19. The computer-readable medium of claim 17, wherein accessing, with the application layer, data stored in the data storage layer includes accessing, with the application layer, at least one selected from a group consisting of a machine learning model and an artificial intelligence model.

20. The method of claim 11, wherein processing, with the data processing layer, the application event includes

extracting, with the data processing layer, the application event from the event storage,

transforming, with the data processing layer, the application event, and

loading, with the data processing layer, the transformed application event to the data storage layer.