

@startuml

title Use Case Diagram - Agile Sprint Management Dashboard

actor "Scrum Master" as SM

actor "Product Owner" as PO

actor "Developer" as DEV

rectangle "Agile Sprint Management Dashboard" {

(Login)

(Create Sprint)

(Add Tasks to Backlog)

(Update Task Status)

(View Sprint Velocity)

(Analyze Backlog Health)

(Monitor Team Workload)

(Generate Sprint Report)

}

SM --> (Login)

SM --> (Create Sprint)

SM --> (View Sprint Velocity)

SM --> (Monitor Team Workload)

SM --> (Generate Sprint Report)

PO --> (Login)

PO --> (Add Tasks to Backlog)

PO --> (Analyze Backlog Health)

PO --> (View Sprint Velocity)

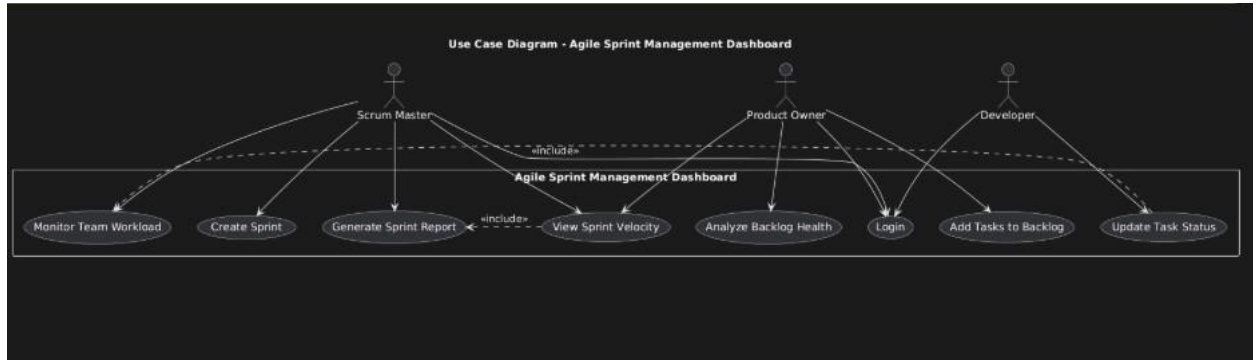
DEV --> (Login)

DEV --> (Update Task Status)

(View Sprint Velocity) .-> (Generate Sprint Report) : <<include>>

(Update Task Status) .-> (Monitor Team Workload) : <<include>>

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title Component Diagram - Agile Sprint Management Dashboard

```
package "Agile Sprint Dashboard" {
```

```
  [Web UI] --> [API Gateway]
```

```
  [API Gateway] --> [Sprint Service]
```

```
  [API Gateway] --> [Task Service]
```

```
  [API Gateway] --> [Analytics Service]
```

```
  [API Gateway] --> [Authentication Service]
```

```
  [Sprint Service] --> [Database]
```

```
  [Task Service] --> [Database]
```

```
  [Analytics Service] --> [ML Engine]
```

```
}
```

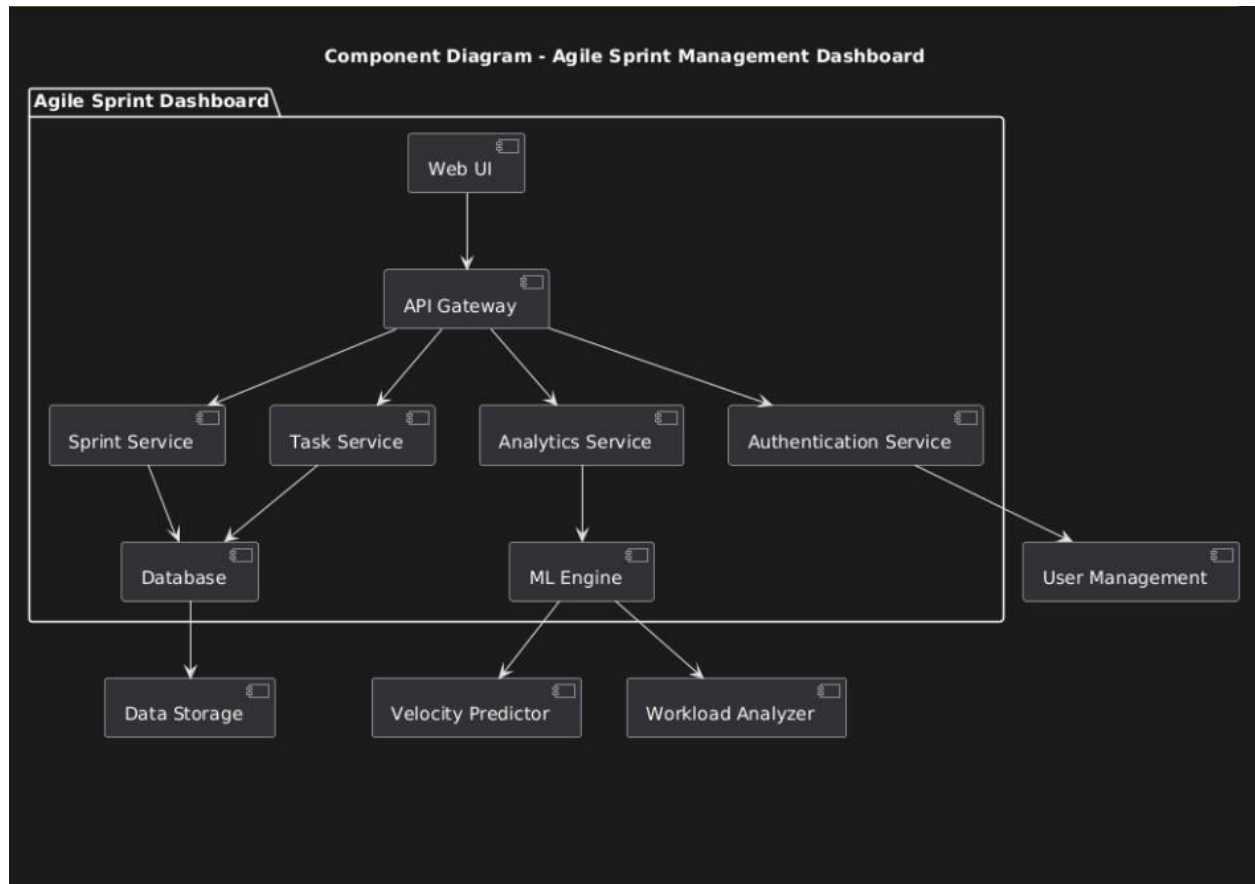
```
[ML Engine] --> [Velocity Predictor]
```

[ML Engine] --> [Workload Analyzer]

[Database] --> [Data Storage]

[Authentication Service] -down-> [User Management]

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title Activity Diagram - Agile Sprint Management Dashboard

start

:User Logs In;

if (Valid User?) then (yes)

  :Show Dashboard;

else (no)

```
:Display Error Message;  
stop  
endif
```

```
:Select Sprint;  
:View Tasks and Velocity;  
if (Update Task?) then (yes)  
    :Change Task Status;  
endif
```

```
:Run Backlog Health Check;  
:Compute Sprint Velocity;  
:Predict Team Workload using ML Engine;
```

```
if (Generate Report?) then (yes)  
    :Generate Sprint Report;  
    :Display Insights;  
endif
```

```
stop  
@enduml
```

## Activity Diagram - Agile Sprint Management Dashboard

