

VIVA - Can software improve the user experience for customers and employees of a milk subscription service?



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Aim



To determine if the use of software can improve the subscription process of ordering milk for users in the Bridgend area in the context of user experience.

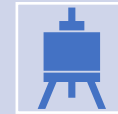
Objectives



Determine client requirements.



Literature review.



Design and develop an application.



Use and create semi-structured interviews to collect perceptions.



Analyse customer and client perceptions using phenomenological analysis.



Evaluate the overall user experience from the analysis.

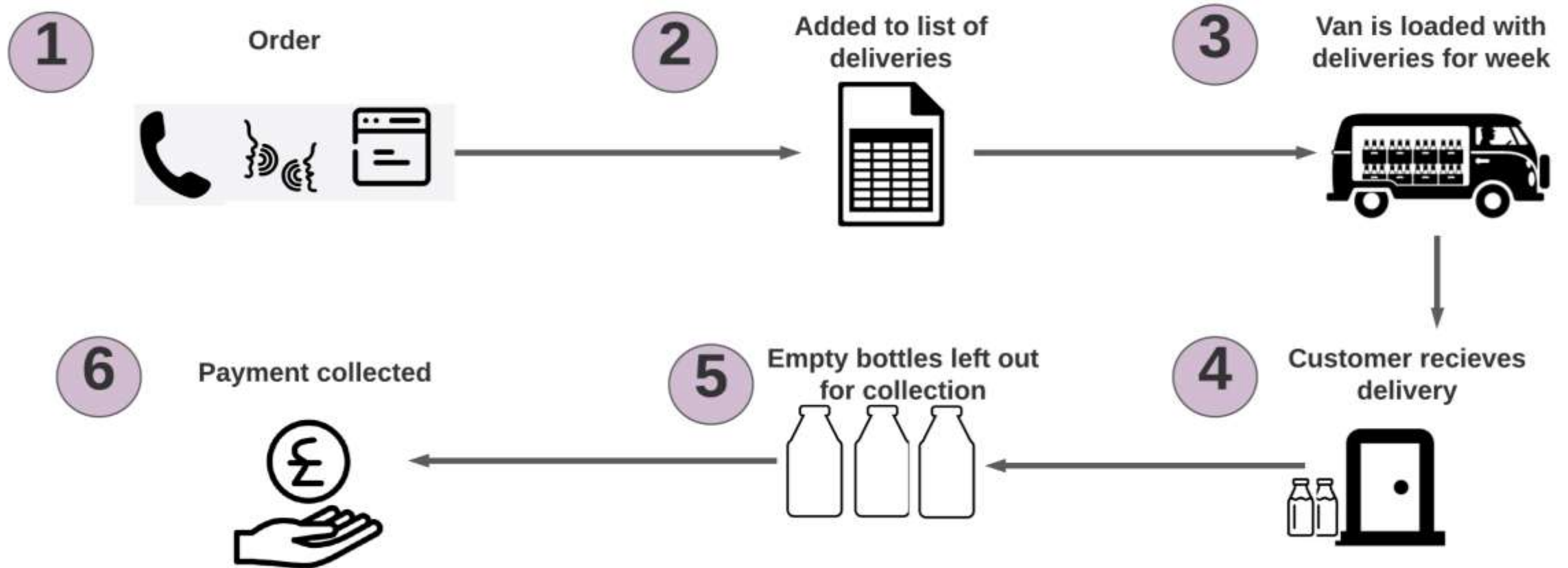
Client



Sells to local customers
and businesses



Client - Process



Literature review

E-commerce
and payments

Payment
gateways

Platforms –
Web vs Mobile

Current
applications

Milk Industry

User
experience
and usability

Requirements

Display the products for purchase.

Registration and login page.

Subscription management features.

Payment system.

Quantity selection.

Contact page.

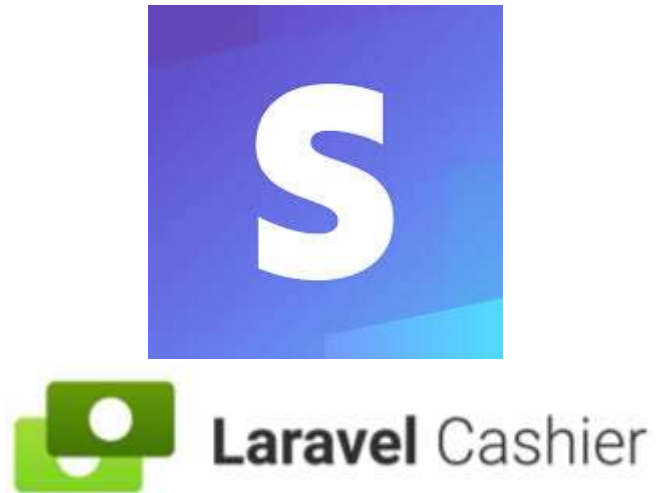
Administration page.

Solution – Architecture

Frontend



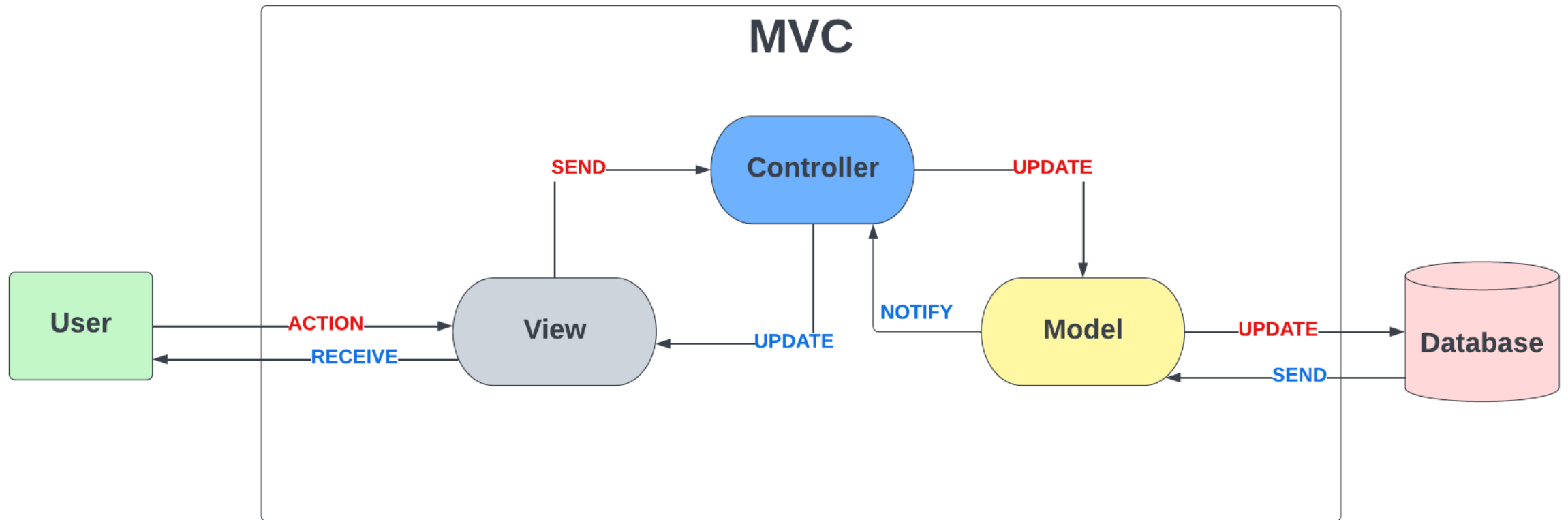
Payment API



Backend

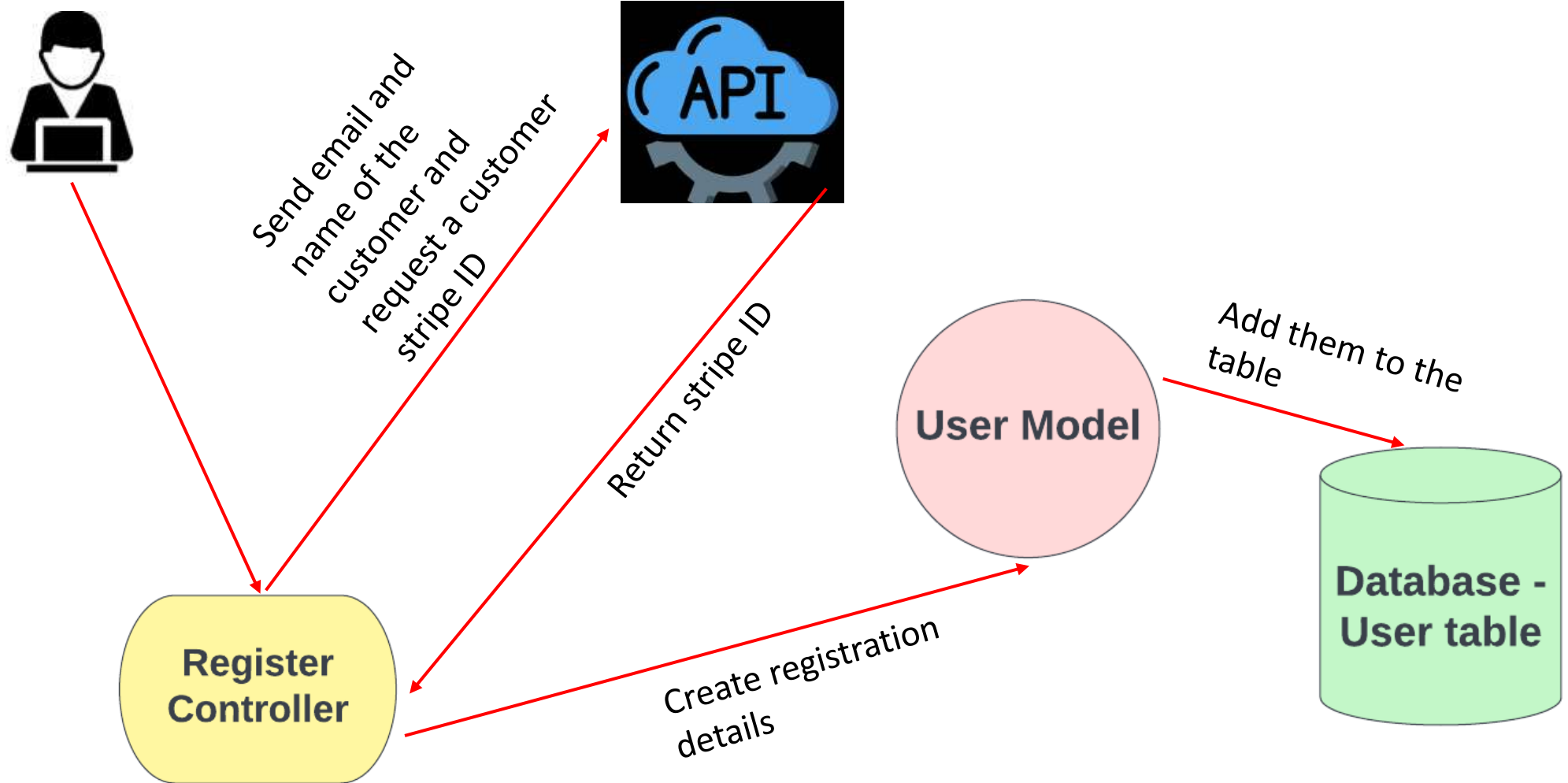


Model View Controller (MVC)



Solution – Example Interaction (Registration)

The user fills in the registration form on the view.



User Acceptance Testing

8 participants were used for testing the system. Each asked to complete 3 tasks:

- Register for the service.
- Purchase a subscription.
- Handle subscription management.



After using the system they were asked questions related to user experience and usability based on known heuristics.

Results & Findings

Embracing Digitisation

Aesthetic Contrast

**Process Recognition
+ System Visibility**

**Flexibility +
Online Payments**

**Comfortability +
Enjoyability**

Embracing Digitisation

Users showed general acceptance of the service becoming digitised.

Why? – Order management, online payments, customer experience and efficiency.

What? – System is generally wanted.

“I think it's a good idea but I wouldn't be that bothered if it didn't happen as I use cash anyway..”

“Moving the service online is a great idea. I love to pay online and to avoid change and cash. I think this service will allow me to manage my subscription much better if it is online.”

Aesthetic Contrast

Contrasting views of the appearance of the website.

Why? – Lack of vibrancy, overuse of text, underuse of appropriate symbols/images and lack of clarity regarding the homepage.

What? – Negative impact on the user experience and usability. However, only located in specific areas.

“..it wasn't really nice to look at on the front page I thought they could've been a picture of something to show what was going on rather than a list.”

“Keep the website professional by removing the cartoon pictures. Change them for more realistic ones....”

Process Recognition and System Visibility

Process recognition and system visibility issues in the subscription process.

“It is like other websites really and yeah only difference will be that I am used to entering my address and name in with the payment field. I'm not used to registering at the start”

“Obviously, on the homepage, you have that list of them steps to go through. However, going through it would've been better if it lets you see how far you are in finishing the steps..”

Process Recognition and System Visibility

Why?

- Registration first is confusing.
- No identifier for progress.
- Switching back to the homepage.
- Account page not easily located.
- Edit subscription after purchase.
- Basket number hard to see.
- Lack of feedback on actions.

“It is like other websites really and yeah only difference will be that I am used to entering my address and name in with the payment field. I'm not used to registering at the start”

“Obviously, on the homepage, you have that list of them steps to go through. However, going through it would've been better if it lets you see how far you are in finishing the steps..”

Process Recognition and System Visibility

What?

- System is negatively impacting the user experience and certain usability aspects are the cause.
- Design needs improving in relation to feedback and visibility.

“It is like other websites really and yeah only difference will be that I am used to entering my address and name in with the payment field. I'm not used to registering at the start”

“Obviously, on the homepage, you have that list of them steps to go through. However, going through it would've been better if it lets you see how far you are in finishing the steps..”

Flexibility and Online Payments

Mostly positive experiences from the flexibility of the system compared to the old system.

Generally positive experiences with online payments.

“I think managing the subscription online would improve my life offering me flexibility.”

“Yes, however, it would be better for multiple payment options such as apple pay or PayPal.”

Flexibility and Online Payments

Why?

- Account management features offer some users flexibility compared to the old system.
- Most customers and all employees found online payment quicker compared to the old system.
- Some customers experienced issues with the layout of the payment system.
- Some would still like to pay in cash.
- Employees wanted admin page.

“Yes, however, it would be better for multiple payment options such as apple pay or PayPal.”

“I think managing the subscription online would improve my life offering me flexibility.”

Flexibility and Online Payments

What?

- Online features offered have generally improved the experiences of users by offering flexibility and efficiency.
- Considerations for issues relating to desired features.
- Objective for designing an appropriate system partially failed due to lack of admin page.

“Yes, however, it would be better for multiple payment options such as apple pay or PayPal.”

“I think managing the subscription online would improve my life offering me flexibility.”

Comfortability and Enjoyability

Most users found the system to be enjoyable and comfortable. Some found it to be just okay.

Some offered further recommendations for a better experience.

This could suggest the system is suitable for the users but could be improved further for the users.

“Overall yeah the website was enjoyable to use I enjoyed ordering on it and seeing it working for us.”

“Yes, I felt comfortable using it. But going through the process it would have been good to be told how long I had left in the process without going back to the first page.”

“No issues but it would be nice to have more feedback when something is complete.”

Can software improve the user experience?

Overall the data suggests the user experience of the customers and employees could improve with software compared to the old system.

- Digitisation
- Flexibility – Account management
- Online payments – Efficiency
- Comfortability
- Enjoyability



Can software improve the user experience?

However, improvements are needed for the system to offer the users a truly complete user experience as negative experiences were observed.

- System visibility – Feedback, cart issues and progress.
- Missing features – Admin page, cash payment and editing subscriptions.
- Aesthetic issues – Images, colours and reliance on text.

Recommendations and future work

- Implementation of the administration page for the drivers.
- Mobile implementation of the service.
- Include a way to edit the subscription after ordering.
- Adding additional payment methods using Stripe.
- Use a different payment gateway and compare the experiences.
- Use the system in a trial run study looking at both user experience and company outcomes.



Thank you for listening

Any questions?

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