

Arrays - GCSE Computer Science video for arrays

JAVONE: I'll get super chicken with chilli, please mate.

CHEF: This one?

JAVONE: No, no. The one on the left.

CHEF: Oh, that one?

JAVONE: No. Other left.

CHEF: Oh, this one?

DENISE: Proper tasty.

JAVONE: Great.

DENISE: But too many calories.

JAVONE: Ah.

VICKY: Wanna know the best way to organise all that tasty information?

JAVONE: Huh?

VICKY: And be able to tell the chef exactly where it is on the menu?

JAVONE: Er ... Okay.

VICKY: You need an array.

JAVONE: Of course. What's an array?

VICKY: An array is a data structure.

DENISE: Obviously.

VICKY: Which is used to hold similar data of the same type.

JAVONE: How's that gonna help?

VICKY: Lots of different types of food can be organised into a structure.

JAVONE: Oh yeah. So, having a set position for each type of food will help to... find them?

VICKY: Yes. An array is like a table where ...

DENISE: Where each element has an index in the array and can hold a value ...

VICKY: Cool it, Einstein, it's not a game. But this is.



GAME VOICE: Take Array Target.

JAVONE: Oh, wicked!

VICKY: This game is bad!

JAVONE: Yeah, like it.

GAME VOICE: Declare your array.

VICKY: All right, what type of data ...

DENISE: Or data type.

VICKY: ... or data type, is going into the array?

JAVONE: Food?

VICKY: Yes. That's called the identifier.

JAVONE: Got it.

VICKY: How many types of food?

JAVONE: Hmm, ten?

GAME VOICE: Ten elements.

VICKY: Each of those boxes is called an element.

GAME VOICE: Load food.

CHEF: All freshly made, straight from the freezer.

VICKY: Arrays can store things like integers, floats and strings.

JAVONE: Huh?

DENISE: Numbers or text.

JAVONE: Right.

VICKY: But today, we're using names of fast food, which are stored as strings.

JAVONE: Erm ...

DENISE: Words.

JAVONE: Got it.

DENISE: By the way, an array is a static data structure. It means once you've created it, you can't change the size.

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JAVONE: Okay.

VICKY: Thanks, Denise.

DENISE: You're welcome.

VICKY: Now, we need a way of pointing at each element.

GAME VOICE: Number your elements.

JAVONE: Hold on. The first column is number zero.

VICKY: This is a computer science video, yeah?

JAVONE: And what?

VICKY: So, zero is the first number.

JAVONE: Sick.

GAME VOICE: Take Array Target: Round one.

JAVONE: All right then, I'll have a number four, please? Super chicken with chilli. Hold on, wasn't that the one with too many calories?

DENISE: Yep.

GAME VOICE: Calorie overload.

DENISE: You'll need a new row for calorie content.

VICKY: Oh yeah.

DENISE: And another row for reviews.

VICKY: I was gonna add those.

DENISE: You've made a one-dimensional array. But to show food, reviews and calories, we need to store three types of data. We need three rows. And for three rows, we have to make a ...

VICKY: Two-dimensional array.

DENISE: Correct.

VICKY: Thank you.

DENISE: You're welcome.

GAME VOICE: Declare your two-dimensional array. Choose the array size.

VICKY: Three rows. Food, reviews, calories. Ten elements in each.

GAME VOICE: Ten elements.

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VICKY: And that's it made.

GAME VOICE: Two-dimensional array. Ready?

JAVONE: Ready.

GAME VOICE: Order.

JAVONE: Okay, look at the reviews.

DENISE: Row one.

JAVONE: Yeah. Column two.

DENISE: It's got three stars.

JAVONE: And only six hundred calories.

DENISE: Do it!

JAVONE: I'll have a row zero, column two, please?

CHEF: Spicy chicken wings.

GAME VOICE: Perfect.

JAVONE: You know it. I'll have a row zero, column nine.

CHEF: Super cheesy chips.

DENISE: Those chips have enough calories to kill an elephant.

JAVONE: Where does it say that?

DENISE: Row two, column nine.

JAVONE: Oh yeah.

CHEF: How about trying the slime burger? It's 100 per cent organic.

VICKY: I've lost my appetite.

JAVONE: Hashtag 'why put it on your menu in the first place?'

DENISE: That actually looks pretty good.