



ECMA/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Notebooks and Tablets

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	Lenovo	Logo
Company name *	Lenovo	
Contact information *	Lenovo Global Environmental Affairs	
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Internet site *	https://www.lenovo.com/us/en/about/sustainability	
Additional information	The latest version of this document can be found at: http://www.	lenovo.com/ecodeclaration

The company declares (based on product specification or test results based obtained from sample testing), that the product					
conforms to the statemen	nts given in this declaration.				
Type of product *	Notebook				
Commercial name *	Lenovo 100e 2nd Gen				
Model number *	82GJ				
Issue date *	2020/08/07				
Intended market *	Global Europe Asia, Pacific & Japan Americas Other				
Additional information					

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template:

P4.1 – P4.3 Consumable materials

P9.1 TEC and Print speed

P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products.

wodei nu	mber "	82GJ	Logo	Lend		
Issue date * 2020-8-7		2020-8-7		Leik	JVC) _{TM}
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1	Hazardo	us substances and preparations				
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE	B1)	\boxtimes		
P1.2*		do not contain Asbestos (see legal reference). tt: Legal reference has no maximum concentration value.				
P1.3*	hydrobro trichloroe	do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), mofluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrachethane, methyl bromide (see legal reference). Comment: Legal reference has no mation values.				
P1.4*		do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych I (PCT) in preparations (see legal reference).	lorinated			
P1.5*		do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carb ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	oon atoms in th	ne 🔀		
P1.6*	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). at: Max limit in legal reference when tested according to EN1811:2011-5.),5 μg/cm²/wee	k 🔀		
P1.7*	REACH	Article 33 information about substances in articles is available at (add URL or mail www.lenovo.com/us/en/about/sustainability	contact):			
P2	Batterie	S				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with t Information on proper disposal is provided in user manual. (See legal reference)	he disposal			
P2.2*	Batteries	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	nium. (See lega	al 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conform	nity verification & Eco design (ErP)				
P3.1*		luct is CE-marked to show conformance with applicable legal requirements (see legal requirements) (see legal requirements) (see legal requirements) (aration of Conformity can be requested at: https://www.lenovo.com/us/en/about/su				
P3.2*		luct complies with the Eco design requirements for energy-related products, al reference).	·	\boxtimes		
	` •	l information is; given in item P15 or added to this document,				
_		available at: https://www.lenovo.com/us/en/compliance/e	eco-declaration	1		
P5		packaging	<u> </u>			
P5.1*	hexavale	ng and packaging components do not contain more than 0,01% lead, mercury ent chromium by weight of these together.				
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature of elegal reference).				
P5.3*	The product packaging material is free from ozone depleting substances as specified in the Montreal Protoc (see legal reference). Comment: Legal reference has no maximum concentration values.		col 🔀			
P6		nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).		\boxtimes		

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *	82GJ	Logo	Langua
Issue date *	2020-8-7		LEI IOVO.

Product	environmental attributes - Market requirements (See General NOTE GN below)					
	- Environmental conscious design Requirement met					
Item	*=mandatory to fill in. Additional information regarding each item may be found under P14.	Yes	No	n.a.		
P7	Design, Disassembly, recycling					
P7.1*	Parts that have to be treated separately are easily separable		Щ.	Щ.		
P7.2*	Plastic materials in covers/housing have no surface coating.		Щ.	Щ.		
P7.3*	Plastic parts > 100 g consist of one material or of easily separable materials.		Щ.	Щ.		
P7.4*	Plastic parts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.		Щ.	Щ.		
P7.5	Plastic parts are free from metal inlays or have inlays that can be removed with commonly available tools.		Щ.	Щ.		
P7.6*	Labels are easily separable. (This requirement does not apply to safety/regulatory labels).		Ш			
D7 7*	Product lifetime					
P7.7*	Upgrading can be done e.g. with processor, memory, cards or drives		Щ.	Щ.		
P7.8*	Upgrading can be done using commonly available tools			Щ.		
P7.9	Spare parts are available after end of production for: 5 years					
P7.10	Service is available after end of production for: 5 years					
	Material and substance requirements					
P7.11*	Product cover/housing material type (e.g. plastics, metal, aluminum):					
P7.12	Material type: PC/ABS Material type: Material type: Insulation materials of external electrical cables are PVC free.		\square			
P7.13	Insulation materials of internal electrical cables are PVC free.	_#	\overline{X}	H		
P7.14	External plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) bromine and 0,1%	/-		+		
F1.14	weight (1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flame retardants, an					
	polyvinyl chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine in parts containin					
	more than 25% post-consumer recycled content.					
P7.15	Printed circuit boards, PCBs (without components) are low halogen: all PCBs > 25 g are low haloge as defined in IEC 61249-2-21. (See 1NOTE B2)	n 📙				
P7.16	Flame retarded plastic parts > 25 g in covers / housings are marked according ISO 1043-4: Marking: >PC+ABS-TD15FR(40)<					
P7.17	Alt. 1: Chemical specifications of flame retardants in printed circuit boards > 25 g (without components):			_		
	TBBPA (additive), TBBPA (reactive) (See NOTE B3), Other <i>Brominated epoxy resin</i> CAS #:					
	26265-08-7 Alt. 2: Chemical specifications of flame retardants in printed circuit boards (without components) > 25 g	_	_			
	according ISO 1043-4:			\boxtimes		
P7.18	Alt. 1: Flame retarded plastic parts > 25 g contain the following flame retardant substances/preparations is	n				
	concentrations above 0,1%:					
	1. Chemical name: BPADP , CAS #: 181028-79-5 (See NOTE B4)	_	_	_		
	2. Chemical name: , CAS #: " 3. Chemical name: , CAS #: "					
	,					
	Alt. 2: Chemical specifications of flame retardants in plastic parts > 25 g according ISO 1043-4:	<u> </u> _	Ц.	\underline{X}		
P7.19	In plastic parts > 25 g, flame retardant substances/preparations above 0,1% are used which have been		\boxtimes			
	assigned the following Risk phrases; and Hazard statements:					
P7.20*	The source(s) for these classifications is/are found at (add URL(s)): , (See note B5) Postconsumer recycled plastic material content is used in the product (See Note B6):		$\overline{}$			
F1.20	Postconsumer recycled plastic material content is used in the product (See Note Bo).	\boxtimes		Ш		
	If YES; at least one of the two alternatives below shall be answered;					
1	a) Of total plastic parts' weight > 25 g, the postconsumer recycled plastic material content					
	(calculated as a percentage of total plastic by weight) is 4.9 %.					
	b) The weight of recycled material is 28.3 g.					

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	82GJ	Logo	Lonovo
Issue date *	2020-8-7		Lei IOVO.

Product environmental attributes - Market requirements (continued)	Requir	remen	nt met
Item	Yes	No	n.a.

		ostance requirements					
P7.21*	Biobased plastic	material content is use	ed in the product (See N	NOTE B7):			
D7.00*							
P7.22*							
P8	Batteries	a specify. Number of ia	anıps. anu maxii	num mercury content p	per lamp: mg		
P8.1*		composition: Lithium	ion			$\overline{}$	
P9		ption (See NOTE B8)	1011			<u>Ш</u>	
P9.1			els or energy consump	tions are reported:			
Energy mo		Power level at	Power level at	Power level at	Reference/Standard for energy	\Box	
		100 V AC	115 V AC	230 V AC	modes and test method *	ш	
Peak (On-	max)	65 W	65 W	65W	Full load		
Categor	<u>y 1</u>						
Short Idle Enabled	State - WOL	4.35 W	4.38 W	3.94W	Use for ENERGY STAR V8 registration (P _{idle})		
Long Idlo	State - WOL	2.24 W	2.26W	2.38 W	Use for ENERGY STAR V8		
Enabled	State - WOL	2.24 VV	2.20VV	2.30 VV	registration (P _{idle})		
Sleep (S3)	- WOL Disabled	0.43 W	0.43 W	0.46W	Use for ENERGY STAR V8 registration (P _{Sleep})		
Off (S5) - I	WOL Disabled	0.33 W	0.34W	0.36 W	Use for ENERGY STAR V8 registration (Poff) Use for ErP		
EPS No-lo	ad	0.1 W	0.1 W	0.1 W			
(External power s	supply / charger plugged in the sconnected from the product.)	e					
PTEC *	sconnected from the product.)	1.76 W	1.77W	1.67 W		\Box	
Typical En	ergy Consumption					ш	
ETEC * Annual En	ergy Consumption	15.4 kWh/year	15.5kWh/year	14.6 kWh/year	$E_{TEC} = (8760/1000) \times (P_{\text{off}} \times 0.25 + P_{\text{sleep}} \times 0.35 + P_{\text{long_Idle}} \times 0.10 + P_{\text{short_Idle}} \times 0.30)$		
		Poff: Off Mode(S5) - V	VOL Enabled; Psleep: Slee	p Mode(S3) - WOL Enab	oled; P _{idle} : Idle State - WOL Enabled		
External Po	ower Supply Efficie	ency Level (Internation	al Efficiency Marking P	rotocol) * : VI			
Display res	solution * : 1366x7	68megapixels				П	
Default tim	e to enter energy s	save mode: 10 minutes	3			Ħ	
P9.2*	0,		tion is provided with the	e product.		Ħ	
P9.3		class (monitors only):		F		\forall	
P10	Emissions	older (members omy).					
FIV		- Declared according	to ISO 9296 (See NOT	F R9)			
P10.1		Mode description	10 10 0 0200 (000 110 1		nit A-weighted sound power level, $L_{WA,c}$ (I	B)	
	Idle	* System Idle		* 3.0		$\overline{\Box}$	
	Operation	* CPU;Operation		* 3.0		Ħ	
			nd pressure level (dB) $L_{\it pk}$	16.8 (operator pos	sition desktop – idle)		
			nd pressure level (dB) $L_{ ho ho}$		sition desktop – operating)		
				Am Sported poor	,		
	Measured according to: Signature Sig						

NOTE B7 The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model number *	82GJ	Logo	Lonovo
Issue date *	2020-8-7		LEI IOVO.

Product e	environmental attributes - Market requirements (continued)	Requirer	nent	met
Item		Yes	No	n.a.
	Electromagnetic emissions			
P10.4	Computer display meets the requirement for low frequency electromagnetic fields of the following voluntary program(s): MPR-II(3 pin AC adapter only)			
P12	Ergonomics for computing products			
P12.1*	The display meets the ergonomic requirements of ISO 9241-307 for visual display technologies.		П	
P12.2*	The physical input device meets the requirements of ISO 9995 and ISO 9241-410.			$\overline{\Box}$
P13	Packaging and documentation			
P13.1*	Product packaging material type(s): <i>EPE cushion</i> weight (kg): <i>0.0305</i> Product packaging material type(s): <i>Carton</i> weight (kg): <i>0.268</i> Product packaging material type(s): <i>PE</i> weight (kg): <i>0.012</i>			
P13.2*	Product plastic primary packaging is free from PVC.	\boxtimes		
P13.3*	For product primary corrugated fiberboard packaging, specify the contained percentage of minimum post-consumer recovered fiber content: 90 %			
P13.4*	Specify media for user and product documentation (tick box): ☐ Electronic, ☐ Paper, ☐ Other			
P13.5	(Please only complete this item if paper documentation used) User and product documentation on paper media is chlorine-free: If Yes, please specify:			
	Totally chlorine-free	\boxtimes		
	Elemental chlorine-free			
	Processed chlorine-free			
P14	Voluntary programs			
P14.1	The product meets the requirements of the following voluntary program(s):			
	ENERGY STAR® Criteria version: 8.0 Date: 2020/6/4 Product category: 1 Eco-label: EPEAT Criteria version: IEEE 1680.1-2018 Date: 2020/7/29 Product category: Notebore Co-label: TCO Criteria version: 8.0 Date: 2020/6/4 Product category: Notebore Co-label: PCGL Criteria version: Ver.13 Date: 2020/7/29 Product category: Notebore Co-label: PCGL Criteria version: Ver.13	ook		
P15	Additional information (See NOTE B10)			
P9	Energy consumption of specific configuration may vary; description of the tested product configuration			
	NOTE: Supplier makes no representations, guarantees, assurances or warranties whether express or implied, information contained in this document. All information provided by supplier in this document is provided based knowledge available at the time of completion, and supplier shall have no obligation to update such information provided here is approximate and provided for informational purposes only. See a Lenovo Account Representation.	l on suppl n. The info	lier's ormati	on
P9	See Energy Star Qualified Notebooks & Tablet Computers for the latest information: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=CO			

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	Lenovo 100e 2nd Gen	Logo	
Model Number	82GJ		Lonovo
Issue Date	2020-8-7		Lenovo.
Additional information			

P7.1.1	Product environmental attributes							
(d)	Year of manufacture:	2020						
(e)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are disabled and if the system is tested with switchable graphics mode with UMA driving the display.							
f)	Etec value (kWh) per ErP Lot 3 Category and capability adjustments applied when all discrete graphics cards (dGfx) are enable							
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)			
capability adjustments applied during testing	Memory over base [GB]	4	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , , , , , , , , , , , , , , , , , , ,			
	Additional internal storage	YES (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
	Discrete television tuner	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
	Discrete Audio Card	NO (Yes / No)	(Yes / No)	(Yes / No)	(Yes / No)			
cape	Discrete graphics Card(s) [number / #]	NO #: (Yes / No)	#: (Yes / No)	#: (Yes / No)	#: (Yes / No)			
	Category of discrete graphics Card(s)	NO						
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)	7.65						
	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled							
g)	Idle state power demand (Watts);				4.34			
h)	Sleep mode power demand (Watts);							
i)	Sleep mode with WOL enabled power demand (Watts) (where enabled);							
j)	Off mode power demand (Watts);							
k)	Off mode with WOL enabled power demand (Watts) (where enabled);							
I)	Internal power supply efficiency at 10 %	ver (if applicable):						
	10% 20% 50%	100% Ave	rage					
(m)	External power supply efficiency (if applicable)*:							
	Average active efficiency: 87,98%,88,63%,88,83%							
0)	*internal note: show values for all available external power supplies Minimum number of loading cycles that the batteries can withstand (applies only to notebook computers): 500							
p-1)	Measurement methodology used to determine information mentioned in points (I) – internal PSU efficiency: NA							
p-2)	Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: EN 50563:2011 measurement methodology							

(p-3)	p-3) Measurement methodology used to determine information mentioned in points (o) – loading cycles batteries: EN 61960 measurement methodology							
(p-4)	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: EN 62623:2013 measurement methodology							
(q)	Sequence of steps for achieving a stable condition with respect to power demand: EN 62623:2013 measurement methodology							
(r)	Description of how sleep and/or off mode was selected or programmed: **Begin menu -> Power -> Select sleep or off mode** **Transport of the sleep and sleep or off mode** **Transport of the sleep and sleep or off mode** **Transport of the sleep and slee							
(s)	Sequence of events required to reach the mode where the equipment automatically changes to sleep and/or off mode: refer to power management, 30mins automatically reaches sleep mode							
(t)	Duration of idle state condition before the computer automatically reaches sleep mode, or another condition which does not exceed the applicable power demand requirements for sleep mode (in minutes):							
(u)	Length of time after a period of user inactivity in which the computer automatically reaches a power mode that has a lower power demand requirement than sleep mode (in minutes):							
(v)	Length of time before the display sleep mode is set to activate after user inactivity (in minutes):							
(w)								
(x)	User information on how to enable the power management functionality: refer to user manual							
(z)	Test parameters for measurements: — test voltage in V and frequency in Hz, — total harmonic distortion of the electricity supply system, — information and documentation on the instrumentation, set-up and circuits used for electrical testing: 230V/50HZ, Total Harmonic Distortion<2%							
Additional Notebook Battery Information:								
		Battery[ies] <u>not</u> user replaceable	Battery[ies] user replaceable	n/a				
		The battery[ies] in this product cannot be easily replaced by users themselves. $^{\rm 1)}$						
Internal/built-in Battery								
External/detachable Battery								
Bios Backup Battery								
Other:								
Additional information								
)								

., The battery[ies] in this product cannot be easily replaced by users themselves. Акумулаторната[ите] батерия[и] в този продукт не може да се замени[ят] лесно от самите потребители.

Las baterías de este producto no pueden ser sustituidas fácilmente por los propios usuarios.

Výměnu baterie/baterií v tomto výrobku by neměli provádět sami užívatelé. Brugeren kan ikke uden videre udskifte batteriet/batterierne i dette produkt.

Der Akku/die Akkus dieses Produkts kann/können nicht ohne weiteres vom Benutzer selbst ausgetauscht werden. Kasutajad ei saa selle toote akut/akusid ise hõlpsasti asendada.

Τασυία μα στο προϊόν αυτό δεν μπορούν να αντικατασταθούν εύκολα από τους ίδιους τους χρήστες La/les batterie(s présente(s) dans ce produit ne peuvent être facilement remplacée(s) par les utilisateurs eux-mêmes. Korisnik ne može lako zamijeniti Bateriju sam u ovom proizvodu.

La batteria/le batterie in questo prodotto non può/possono essere facilmente sostituita/e dall'utente.

Lietotāji paši nevar nomainīt šā ražojuma akumulatoru(-us). Šio gaminio baterijos [baterijų] pats vartotojas negali lengvai pakeisti. A termék akkumulátorát/akkumulátorait a felhasználó nem tudja egyedül egyszerűen kicserélni.

II-batterija/batteriji f'dan iI-prodott ma tistav/jistgħux tiġi/jiġu sostitwita/i mill-utenti stess. Batteriet [ene] i dette produktet kan ikke lett erstattes av brukerne selv. De batterij(en) in dit product is (zijn) door de gebruiker niet gemakkelijk vervangbaar.

Użytkownik nie może sam w latwy sposób wymienić baterii w tym produkcie.
A ou as baterias deste produto não podem ser facilmente substituídas pelos próprios utilizadores.
Bateria (bateriile) din acest produs nu poate (pot) fi ușor înlocuită (înlocuite) de utilizatorii înșiși.

Batériu(-ie) v tomto výrobku nemôže vymieňať používateľ. Baterij/baterije v tem izdelku uporabniki sami ne morejo zlahka zamenjati. Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa.

Det är inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.